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Is the reference desk used for reference interviews

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Abstract

Purpose – The purpose of this study is to investigate why users turn to the university library's reference desk and whether librarians make use of the opportunity to conduct reference interviews to disclose any unexpressed information needs.

Design/methodology/approach – This paper presents the results from a qualitative exploration study where interactions between librarians and users were observed in authentic situations at the reference desk and analyzed using a modified version of Radford and Connaway's (2013) categorization of inquiries.

Findings – Most inquiries were seemingly easy to answer and pertained to collections and procedures in the library. Lending out desk supplies accounted for a high proportion of the activity. Only a small number of requests were subject-oriented and reference interview techniques were only used in 5% of the recorded inquiries. This means that the users' information needs were not probed in the vast majority of the interactions.

Research limitations/implications – The study is exploratory and mirrors the activity that takes place in one specific library. The low number of reference interview techniques used may indicate a lack of interest in users' information needs, which signifies a risk of the reference desk being reduced to an arena for instrumental and superficial interaction between librarians and users.

Originality/value – This study illustrates current developments in work at a physical library desk. Few recent studies address face-to-face interactions between librarians and users.

Keywords Academic libraries, Reference services, University libraries, Observation studies, Reference inquiries, Reference interviews

Paper type Research paper

Introduction

In this paper, we revisit the physical reference desk in an academic library. While the focus in recent years has been on digital reference services, we are interested in investigating what kinds of interactions occur at what was once a key meeting point for librarians and library users. We open with an illustration of such an interaction from our field notes.

A student, Ann, comes to the reference desk, looks around, and then addresses the librarian: "How do I borrow books?" The librarian replies, "Do you have a student card?" and enters the library's registration system to check Ann's status. She finds out that Ann is not registered and invites her to complete a printed registration form. In the meantime, the librarian attends to another student and directs him to the IT helpdesk. Ann completes the form. The librarian reviews it and asks Ann to provide some missing information. The

librarian then returns to the system to complete the electronic form. While the librarian is administering the registration, Ann discloses that she has just started on one of the university's Ph.D. programs and is a foreigner in Norway. Once again, she asks the librarian how to borrow books from the library. The librarian takes Ann to the lending machine and gives instructions on how to use it. Ann asks how to search, and the librarian gives a quick instruction to the library's webpage and the OPAC. Ann is satisfied and replies with a smile and says, "OK, then I'm not completely lost." Back at the desk, the other student referred to the IT support desk insists on the librarian's attention by saying, "We used to have a scanner [. . .]?" The librarian explains and points in the direction of the scanner's location, and the student leaves. Ann returns to the reference desk because she does not understand the library's call number system. The librarian takes Ann on a short tour of the bookshelves, briefly explaining the shelving system, and then leaves Ann on her own. Ann finds what she is looking for and checks out the book. On her way out of the library, she turns to the desk and says, "Thank you." The librarian does not return the greeting verbally. As an observer seated behind the librarian, I did not observe any other paralinguistic greeting.

In academic libraries, the reference desk represents a meeting point between librarians' expertise and users' requests for information. The desk "remains a tangible symbol of [the librarian's] mission and work" (Johnson, 2019, p. 92). A primary task for librarians is to help users locate relevant resources to address user inquiries. The American Library Association's Reference and User Services Association (RUSA) defines reference transactions as "[. . .] information consultations, in which library staff recommend, interpret, evaluate and/or use information resources to help others to meet particular information needs" (RUSA, 2008). We use the term inquiries when presenting users' requests and interactions and when analyzing the dialog between user and librarian. During such inquiries, the reference librarian may retrieve resources in a variety of formats, [. . .] point users to the physical or virtual locations of those resources in the libraries, teach users how to search for scholarly information and advise students how to use and cite the retrieved information in their assignments (Bandyopadhyay and Boyd-Byrnes, 2016, p. 597). This interaction between a librarian and a user, whether virtually or in person, typically occurs on a one-on-one basis and focuses on locating relevant information sources for users' immediate situations. In the previous example, there is little evidence of the librarian's engagement with the student's information needs. Instead, the interaction between the librarian and the user remains on a relatively superficial level.

Stevens (2013) examined several studies published after 1986 and proclaims the face-to-face (f2f) reference service's death due to the declining number of inquiries. Johnson (2019) and Bandyopadhyay and Boyd-Byrnes (2016) also emphasize users' preference for digital services. Easy access to information through resources such as Wikipedia and Google reduce the need for intermediaries (Bronstein, 2011; Radford and Connaway, 2013). Several authors have raised questions about the type of expertise necessary to staff a reference desk, and some libraries have replaced librarians with paraprofessionals (Alexander and Wakimoto, 2019; Bishop and Bartlett, 2013; Johnson, 2019; Maloney and Kemp, 2015; Stevens, 2013). Our interest is to investigate the premises for librarians' use of their expertise at the reference desk.

During the first decades of the 21st century, many academic libraries geared their reference services toward guidance to underpin the focus on information literacy as one of the primary goals for libraries in the higher education sector. The transformation of reference services, shifting from answering questions to developing information literacy, constitutes a significant change (Bandyopadhyay and Boyd-Byrnes, 2016). Although academic users who regard themselves as advanced users of digital services perceive reference services to be less critical for finding answers, Bandyopadhyay and Boyd-Byrnes (2016) conclude that the users appreciate human-mediated reference services and that there

is still a need for “skilled, knowledgeable professional librarians” in the digital environment (p. 596). [Magi and Mardeusz \(2013\)](#) found that students who participated in individual f2f consultations preferred physical reference services to digital ones.

Recent reviews of research on reference services suggest that the services mainly address questions on the extent to which digital and in-person services are used, what categories the requests fall under, the accuracy and relevancy of the answers and the type of competence required. In this paper, we address reference services provided at physical reference desks from the librarians’ perspectives and investigate the characteristics of f2f, ad-hoc interactions between users and librarians. This leaves out other reference interactions taking place elsewhere in the library, including digital services. We are interested in finding out what role the reference service plays in a modern academic library by answering the following two research questions, namely, 1) what inquiries do the users pose at the reference desk and 2) to what extent are reference interview techniques used at the reference desk to identify any unexpressed information needs?

Previous research

In their literature review of current trends in academic library reference services, [Bandyopadhyay and Boyd-Byrnes \(2016\)](#) address how students’ various backgrounds and knowledge affect their need to interpret information and find information about literature difficult to access. In their view, the librarian’s task is to train users to become information literate and teach them to use formal query languages. According to [Walz \(2018\)](#) and colleagues’ review, students prefer personal guidance and an immediate answer to their information needs and “generally need the short, instant and personal help” ([Walz et al., 2018](#), p. 241). In an exploratory, qualitative study conducted by [Magi and Mardeusz](#), students participating in individual research consultations prefer f2f-interactions because they provide “a quick, easy and efficient way to get research help, compared to email or chat” ([Magi and Mardeusz, 2013](#), p. 612). Several other studies indicate a decrease in ready reference and subject-oriented questions ([Bandyopadhyay and Boyd-Byrnes, 2016](#); [Bronstein, 2011](#); [Stevens, 2013](#)). [Bronstein \(2011, p. 804\)](#) explains the decrease in easy-to-answer questions in libraries by “the ‘ready-reference’ nature of the internet.”

Ready-reference or subject-oriented questions

Categorizing inquiries is a method used to understand activities and praxis in libraries. It is difficult to compare results from different studies because categories with similar labels are interpreted differently, and the degree of specification varies between different studies. However, a common distinction is between known-item and not-known item inquiries. Answering the latter is more time-consuming, and librarians often regarded such inquiries as more complex and challenging to answer ([Stevens, 2013](#)). A study conducted at a university library in the US, comprising 21 years of registering inquiries in both the physical library and digital services, showed that 35% of the questions asked were directional. The statistics show that users need “help with printers, computers, wireless access; and basic information about how to look-up or find physical materials” ([Stevens, 2013](#), p. 208). [Arnold and Kaske \(2005, p. 182\)](#) tracked 351 chat conversations (419 inquiries) at a university library. They compared specific searches with research inquiries, which “differ from other inquiries in that most involve trial-and-error searching or browsing.” Only 3% belonged to the latter, whereas 20% of the inquiries were specific searches, which often “take the form of giving the user a document, for example, a list of citations, a book or a report” ([Arnold and Kaske, 2005 p. 179](#)). Ready-reference questions (e.g. who is the governor of Alaska?) require only a single, straightforward answer and were identified in 14% of the material. Most questions were categorized as procedural and policy inquiries (41%), and the remaining 16% concerned holdings. Because this study examined chat conversations, the share of directional inquiries was low at just 6% but is still higher than the percentage of

research inquiries.

Reference interviews

In terms of reference inquiries that occur via different kinds of digital channels (f2f, chat and email) in academic libraries, [Bishop and Bartlett \(2013\)](#) found that 83.7% of the inquiries were location-based and only 16.3% were subject-based. The location-based inquiries, for example, finding a room, printer or item were characterized as easy to answer. The authors divided location-based inquiries into wayfinding or attributes of a location. They also found that “80.2% of location-based questions and 77.2% of subject-based questions were asked f2f” ([Bishop and Bartlett, 2013](#), p. 489). Their findings proposed that a mobile app could replace the professional library staff at service points, such as a reference desk.

A longitudinal study conducted by [Radford and Connaway \(2013\)](#) analyzed inquiries submitted through a digital reference service. Their focus was to study the type of inquiries users submitted and the accuracy of the librarians’ answers. They investigated two data sets, one consisting of 915 inquiries in 2004–2006 and 575 inquiries from 2010. The most significant shift was from subject search inquiries’ dominance in the first period toward procedural inquiries in 2010. The authors questioned why the services are still popular, particularly for handling ready-reference inquiries, which constitute 27% and 31%, respectively, of all inquiries in the two data sets. The authors presumed that such inquiries are easy to answer using Google, claiming that “some may be naïve searches, unsure of their ability to find correct and authoritative information or unfamiliar with or unwilling to use, crowd-sourced social question and answer” ([Radford and Connaway, 2013](#), p. 9). However, a user might have been satisfied with previous encounters and trusted the librarians’ ability to provide accurate answers. Inquiries related to holdings amounted to 8% and 9%, respectively.

The reference interview

Many researchers have found that users’ initial questions do not always address their information needs completely or adequately ([Bandyopadhyay and Boyd-Byrnes, 2016](#); [Cole, 2011](#); [Nordlie, 1999](#); [Taylor, 1968](#)), which is why librarians are trained to conduct reference interviews. The interview is important because simple inquiries can turn into complex ones during a reference interview. It also helps the librarian “gauge the depth and determine the nature of users’ information needs” ([Bandyopadhyay and Boyd-Byrnes, 2016](#), p. 608).

Different question-negotiation techniques, such as centering, follow-up questions, summarizing or paraphrasing, make it easier to reveal or reformulate users’ information needs or instigate important nuances, and help librarians to make decisions on where to start searching ([Ross et al., 2019](#); [RUSA, 2013](#); [Saunders and Ung, 2017](#)). Welcoming and closing phrases and especially open-ended questions, are ways to invite users to disclose their information needs ([Nolan, 1992](#)). RUSA’s guidelines for reference librarians describe five main areas worthy of attention, namely, visibility/approachability, interest, listening, searching and follow-up-activities ([RUSA, 2013](#)). They also include several recommendations concerning f2f-communication. Soft communication skills, including active listening, are often highlighted as essential skills for reference librarians ([Bronstein, 2011](#); [RUSA, 2013](#); [Saunders and Ung, 2017](#); [Stevens, 2013](#)).

Most contemporary research on the use of reference interview techniques focuses on digital reference services. Chat logs provide a unique opportunity to track many aspects of the reference interview, including communication and accuracy. [Radford et al. \(2011\)](#) studied 850 transcripts in the period 2004–2006. In 74% of the interactions, they found instances of the librarian’s query clarification, which is far greater than the percentage reported in studies of f2f interactions. Examples of query clarifications occur in many interactions, which [Radford et al. \(2011\)](#) also recommend for questions that appear easy or straightforward. Users provided clarifying information of their own initiative in 23% of

interactions, but librarians also requested clarifications on the information needs in 96%. About half of the inquiries contained follow-up questions confirming the relevance and sufficiency of the results.

[Saunders and Ung \(2017\)](#) examined how well library and information science (LIS) students conducted reference interviews. As much as 93.3% of the users stated that LIS students used techniques to clarify their information needs. [Logan et al. \(2019, p. 933\)](#) found that the absence of clarification questions was “significantly associated with dissatisfaction” and that they should therefore, be used to understand the user’s information needs. Similarly, the omission of closing phrases was related to dissatisfaction ([Saunders and Ung, 2017](#)).

[Empey \(2010\)](#), who analyzed reference interactions at a small academic library, suggests that the time spent on inquiries indicates either the level of instructions or the complexity of the questions. Most of the inquiries in both [Stevens’ \(2013\)](#) and [Empey’s \(2010\)](#) studies were concluded quickly. [Empey \(2010\)](#) found a slight decrease in the number of inquiries lasting longer than 6 min from data collected in 2006 and 2007, compared to data from 2009 and concludes that the level of instruction being provided had decreased. In [Stevens’ \(2013, p. 204\)](#) study, only 3% of the questions “required 10 or more minutes to answer.” [Maloney and Kemp’s \(2015\)](#) analysis shows a decrease in complexity levels over time. Since 2001, the inquiries received at the reference desk were categorized as “point of need” questions, and only 5% of them required the expertise of a librarian or specialist to solve ([Maloney and Kemp, 2015, p. 967](#)). In their study of chat service, 27% of the inquiries were categorized at a complexity level requiring a trained librarian (2015, p. 969). In contrast, [Bronstein’s \(2011\)](#) qualitative study of academic reference librarians found that the participants perceived an increase in the complexity of their questions.

In line with other academic libraries that have experienced a decline in both the number of inquiries and the level of complexity, the library studied by [Maloney and Kemp \(2015\)](#) replaced the staff serving its service points with paraprofessional or non-professionals. However, the number of questions asked and the complexity of questions increased after implementing a more proactive attitude toward users visiting library websites. If visitors stayed too long on a database page, a chat window popped up on the visitor’s computer offering assistance. They learned that a more proactive stance and trained librarians, who were able to disclose actual information needs and use teachable moments to offer guidance and advise, seemed to be successful in chat conversations. This experience inspired the library to reconsider the staffing model and replace service point staff with trained librarians.

The librarians in the on-call-model in [Alexander and Wakimoto’s \(2019, p. 26\)](#) study pointed to difficulties in “maintaining a consistent level of quality of answering questions can be a challenge, and there was sometimes confusion about the librarians’ availability for consultations.” Librarians at the desk could attend to more reference questions and identify questions, potentially leading to more thorough interactions. As a result, the librarians experienced a greater possibility to provide higher quality services.

Several studies report both a decrease in the number of inquiries in physical libraries and the level of complexity of such inquiries. However, some studies show that more active use of reference interview techniques might increase the use of reference services. There are few recent studies on the interactions between librarians and users in the physical library, whereas digital services have been addressed more often. This might be because of the need to learn more about the new format for interaction between the users and libraries to provide different digital services and guides to facilitate self-service. Nevertheless, some studies indicate that there are still users who prefer asking questions to a librarian f2f and that while the goals of reference work are still valid, its practices need to be reconsidered.

Method

We observed interactions between librarians and users at the university library's physical reference desk located in a central campus building. This library is one of several subject specific libraries affiliated to a specific faculty at the university. The primary users are researchers and students taking programs at the faculty, but the library is also open to the public. The library has approximately 25 employees, including trained librarians (with a bachelor's or master's degree in LIS) and subject librarians (subject specialists with a master's or doctorate degree in their specific discipline). The library does not have a separate desk for reference and other library services. The desk is staffed by teams in which all employee groups are represented, including technical and administrative personnel and, during evening shifts, students. In addition, students have the opportunity to book individual sessions with subject librarians and attend library courses. The library facilitates various opportunities to learn, study and socialize, individual reading areas, open and closed group rooms and working areas for students.

We used a modified version of the categorization of inquiries described in [Radford and Connaway \(2013\)](#) to code interactions. A pilot study was conducted where we, in parallel, tested two approaches for collecting and mapping the inquiries, namely, self-recording by librarians and recording by an observer. Based on experiences from the pilot, we concluded that the second approach, observations by the researchers, resulted in the richest data, despite the risk of not "hearing entire conversations or grasping the full significance of information exchange" ([Baker, 2006](#), p. 174).

Two of the authors took turns conducting observation sessions in the library. Over 9 days, 29 hours of observation were conducted. During the sessions, users were informed via posters and the library's information screens that observation was taking place. Each session lasted between 90 and 120 minutes, during which the observer was seated behind the librarians operating the reference desk. The librarians could decline observation, but only two librarians abstained from duty at the desk during our observations. The library required observation to only take place at the times when librarians had agreed to be observed. In the observation notes, the librarians are anonymized and identified as Librarians 1–3. Although both trained librarians and subject librarians participated, we did not record who handled the individual inquiries.

During the observation, the observer did not interfere with the activities taking place. We recorded the observations as a series of events. Each event was defined as an interaction between a user/group of users and the librarians behind the reference desk. In some cases, the interaction moved from the desk to the bookshelves in the library and back to the desk. We chose not to follow the inquiries if the participants (librarian and user) moved away from the reference desk, as we felt this would be too intrusive for the situation to evolve naturally. We recorded the conversations and actions performed by the librarian and user in as much detail as possible for each event. In addition, on-site interpretations and explanatory text were added by the observer. When presenting the results, the field notes' shorthand is revised for ease of reading. Below is an example of an event:

User: I want to pick up a book [Delivers her student card]
[The librarian picks up a book from the book cabinet and registers the loan]
User: Thank you [the user walks away]

All inquiries were categorized as belonging to one of 10 categories. We based the categories on [Radford and Connaway's \(2013\)](#) work, which had identified nine different categories inspired by [Arnold and Kaske \(2005\)](#). In addition, we added a 10th category, entitled lending desk supplies, based on findings from the pilot study. The pilot also revealed two subcategories of each of the categories procedural and holdings. The categories are described in [Table 1](#).

Two of the authors independently coded interaction events to improve the validity of the

data. The intercoder agreement was high, 84%. The disagreements were mainly related to two categories, namely, holdings and procedures. The coders discussed the discrepancies and without difficulty arrived at an agreement.

To learn how librarians approach the users and analyze how they use reference interview techniques to understand their information needs, we analyzed the interactions using RUSA guidelines (RUSA, 2013). We also used Radford et al.'s (2011) query clarification coding schemes to categorize the types of query techniques used and specify who initiated the clarification (librarian or user). Specifically, we wanted to identify the use of open questions aimed at expanding the user's initial queries, follow-up, clarification of questions aimed at refining the user's needs and closing questions to verify that their needs had been satisfied.

Results and analysis

We observed a total of 319 inquiries. One-third of them represented users asking for specific documents (holdings), one-fourth for desk supplies and almost one-fifth concerned procedures related to using the physical library, digital services or information technology (IT). Below, we present excerpts that exemplify the main categories that emerged from our data. We identified only six of the interaction categories described above. No examples of ready reference, research, inappropriate or readers advisory appeared in the material (Figure 1).

Holdings

In total, 34% of the inquiries were related to the collections. This category has two subcategories, namely, expedition of loans and questions about the collection. Of 109 interviews holdings-related inquiries, 68 were routine expeditions (checking in/out and including interlibrary loans). Below is an example of a holdings inquiry:

User: Can you help me to find a book? I've tried searching [shows a note with a title on] [. . .]
I can't
find it on the shelf. It's called 'at the theory of [. . .]'
Librarian: You don't have the author's name?
User: Yes, here. It's [shows the note once again]
Librarian: [searching] It means it's in the [subject] collection. Are you familiar with it?
User: I'm a little uncertain
Librarian: It's over there [points]. I can show you [stands up and walks towards the collection with
the user, before both return]
Librarian: Now, you can just borrow it
Students: [operates the lending automat]
Librarian: [to another librarian] It was put in the wrong place

This example concerns a rather complicated holdings inquiry. More straightforward cases include students bringing a list of required reading texts and asking to loan items from these, typically books on one-day-loan in the library.

Another user asks for help with a long list of references copied from a book. The librarian identifies that the user is interested in didactic literature, which is held in another faculty library, stating: "we have the subject, they have the pedagogical literature." The librarian takes a brief look at the list and concludes that the database education resource information center is the best resource to verify the information: "I need to work more on formulating this search." The student seems a bit embarrassed because his inquiry requires effort, but the librarian explains in a friendly way that, "this is how you start," and looks through the student's results.

Figure 1.

Procedural

Questions related to procedures and routines represent 19% of all inquiries. Most of these

questions were related to how to search for books in the library system. It also includes inquiries about understanding the shelving system, room reservations, accessing information resources, routines and printing. Although the library had a different service point staffed by IT personnel, 19 out of 43 procedural inquiries could be characterized as general IT questions, such as printing and scanning. Below is an example of a procedural inquiry:

User: I want this book. How do I search for it?

[The librarian walks the student to a public PC and shows him the OPAC, where the student enters the author and title. The librarian explains the results and asks if the student has brought his library card. They both return to the reference desk. The librarian queries the library system and asks the student to fill out a registration form. The librarian follows up. The interaction ends with the student reserving a book.]

Conversational

In total, 8% of the inquiries are characterized as conversational. Some of these inquiries concerned “lost and found” issues. We also observed members of the scientific staff who dropped by on their way to an event. Most of the librarians knew the faculty members, as some of the library staff were faculty alumni, and some knew faculty from other recreational activities (such as soccer teams) or professional relationships, and they comment on this. Thus, the reference desk also functions as a meeting point in between activities such as lectures and seminars in the nearby areas.

Subject search

Subject searching accounted for only four per cent ($n = 12$) of the inquiries. These are the classical reference questions initiated by someone approaching the reference desk with a topical information need. The few examples of subject searches in our material are typically short, like the one below. Only a few of these inquiries were somewhat more extensive, including the user approaching the librarian several times (cf. the vignette about Ann’s visit to the library).

User approaches the desk: Do you have anything on programming?

Librarian: We don’t have much on programming, but what language [do you read]?

The user answers [inaudible answer, but the librarian hears]

[The librarian searches bibliographic database] We have a few electronic books

[The librarian guides the student to the OPAC and explains how to interpret the result list.]

Lending desk supplies and directional inquiries

One-fourth of the reference desk inquiries we observed were from users who needed to borrow chargers, cables, staplers, pens and other equipment for study and other purposes. In all cases, the inquiries were concluded quickly and the user was seldom left emptyhanded. In total, 10% of the inquiries were from users who needed help finding their way around the library. Although very simple and straightforward inquiries, they accounted together for 35% of all inquiries.

Reference interview techniques

We observed librarians using reference interview techniques, such as centering and follow-up questions, in just 5% of the inquiries ($n = 17$). The most illustrative example is the relatively simple question about literature on programming provided above. Other examples consist of users asking for a book by giving the title and the librarians following up with clarification questions, such as asking for the author, year of publication, media type or syllabus-related literature. There are no examples of summarizing or paraphrasing in our field notes.

We found some examples of users taking the initiative to guide the librarian in formulating the search strategy. One example of this concerned a retired professor who was interested in noise pollution.

User: I'm retired. I've become interested in noise pollution [shows the librarian a note with an author's name]
Librarian: [checks the OPAC without finding anything, then performs a Google query]
Librarian: I can't find anything in the Norwegian sources [. . .]
User: But what about journals?
[User and librarian look through the result list together, apparently without finding the desired information]. [User leaves the desk but returns after a while]
User: I don't have my glasses, so I can't read anything, can't see [. . .] I'm looking for a particular guy, something he's written about [. . .]
Librarian: Do you have access [. . .]?
User: I'm retired [. . .]
[The librarian explains about access and the use of memory sticks. External users cannot use the printer].

Here, the user, rather than the librarian, suggests alternate approaches following the librarian's initial failure to find relevant items. The user underpins that he knows the author's name and the subject field he is interested in, but the librarian did not proceed with either clarifying or follow-up questions.

The librarians rarely used closing statements, such as "good luck with your reading." In some cases, however, the librarian offered to continue working on the task independently and come back to the user with a more satisfactory answer. A small number of interactions, such as the interaction above between the librarian and the retired user, and the interaction involving Ann described in the introduction, were identified as interactions that could have benefited from the librarian taking a more active stance.

Discussion

In meetings that took place before our study commenced, the librarians commented, "there is no longer any reference work in the library. The duty at the desk is filled up with lending out desk supplies such as chargers and cables." Our results affirm that interactions related to desk supplies and giving directions stand for many of the requests. However, these simple tasks do not require much time or effort. Nevertheless, most of the inquiries pertained to collections and procedures in the library. Only 4% of the inquiries were subject-oriented. The type of questions identified in our study differs from studies of inquiries made in digital channels (Arnold and Kaske, 2005; Radford and Connaway, 2013). Apart from the fact that some types of material are unavailable through digital channels, the difference may depend on the ad-hoc and simple intents of the initial contact (i.e. locating a known item in a physical collection) at the reference desk compared to contact via digital services.

Radford and Connaway (2013) found that ready-reference questions constituted a large share of inquiries, whereas other studies of academic libraries have found a decrease or a small number of ready-reference questions (Arnold and Kaske, 2005; Bandyopadhyay and Boyd-Byrnes, 2016). We did not identify any such inquiries during our period of observation. One reason for this tendency may well be that the students (and faculty) use Google and Wikipedia for such purposes (Bandyopadhyay and Boyd-Byrnes, 2016; Bronstein, 2011).

There were also no inquiries categorized as research in our material. Research-related and other subject-oriented inquiries may occur during appointments with a librarian or in information literacy-related teaching sessions offered by the library, as reported by other researchers (Bandyopadhyay and Boyd-Byrnes, 2016; Magi and Mardeusz, 2013). Bishop and Bartlett (2013) reported four times as many subject-oriented questions than we found in our study, most of which were asked during f2f interactions.

Bishop and Bartlett (2013) conclude that a modern digital service could solve many procedural inquiries. While we agree with them in general, we also see a need to provide f2f

services. The library we studied was well-equipped with guides on using the library system, information about routines and other facilities. Nonetheless, 19% of the inquiries were procedural and related to technical or policy issues, which is less than what found in the study by [Arnold and Kaske \(2005\)](#) but still constitutes a relatively high share of the inquiries. Moreover, 34% of the inquiries about holdings (i.e. both check out/in or help find material in the library) included a fair share of questions about documents and databases in the library. Thus, some users appear to prefer personal assistance over digital support ([Magi and Mardeusz, 2013](#); [Walz et al., 2018](#)).

Ann's question presented at the beginning of the article – “how do I borrow books?” – might be understood as a straightforward inquiry. However, the librarian does not attempt to determine whether Ann had other intentions than the one she expressed for visiting the library. As addressed in previous research ([Bandyopadhyay and Boyd-Byrnes, 2016](#); [Nordlie, 1999](#)), it is not uncommon that people begin their inquiries with a question that does not necessarily reflect or cover their information need. RUSA's advise on conducting referencing interviews is developed to deal with this, but we found no examples in our material of the librarians attempting to reveal unexpressed information needs. In this sense, our findings differ a great deal from Radford (2011) and colleagues' analyzes, where clarifying questions were found in 74% of the inquiries. This discrepancy may be related to the fact that digital and f2f services are, to a greater extent, being developed in different directions. We nonetheless find this surprising and worth following up with more research. Active use of reference interview techniques allows librarians to confirm that the user's needs are taken seriously ([Saunders and Ung, 2017](#); [Stevens, 2013](#)). Most of the inquiries in our material were simple and seemingly straightforward questions. Radford (2011) and colleagues recommend asking clarifying questions in such inquiries, and [Logan et al. \(2019\)](#) recommend identifying users' information needs to avoid dissatisfaction. However, we observed very few examples of such techniques in practice. A few opening and closing phrases were registered, which [Nolan \(1992\)](#) recommends as an appropriate technique to disclose unexpressed information needs. Other more probing techniques, such as openended questioning, paraphrasing and summarizing ([Ross et al., 2019](#); [Saunders and Ung, 2017](#)), were not observed at all. Nonetheless, we did not record any negative comments or other indications of users' dissatisfaction with their visits to the library. It could be the case that users' information needs were satisfied. However, this may also depend on the users' low expectations concerning the possibility of resolving other, potentially more complex, information needs at the reference desk. Our results do not indicate any of these alternates, and this additional aspect must therefore, be studied further.

Approachability is included in RUSA's recommendations. In some cases, we observed that the librarian followed the user to the bookshelves, but this was most often to find a specific book. In physical libraries, roving librarians could address the proactivity that [Maloney and Kemp \(2015\)](#) describe to increase the use of reference services and the level of complexity in inquiries seen in chat conversations. In our field notes, little of this more proactive behavior was identified, perhaps, because the users most commonly visited the reference desk for procedural questions, technical support or supplies. Interactions with the users may be ineffective due to the librarians' lack of engagement. The inquiries made by the retired man and Ann are examples of the absence of reference interview techniques or follow-up and clarification questions, in seemingly typical situations to engage in a reference interview. It was left up to the users to actively maintain the interaction, instead of the librarian being the active part. This shows the importance of reminding personnel handling user interactions, including reference interviews, to be attentive and keep in mind the soft skills recommendations of [RUSA \(2008\)](#).

Limitations

This study is highly contextualized; it is a small-scale study carried out in one academic

library, and it depicts the situation of just one reference service. The observations took place near the reference desk, and we did not keep track of the conversations if and when the librarian and user moved away. Nor did we observe inquiries that were initiated in other library areas, which includes appointments in librarian offices.

We studied the reference service in a physical library and did not include digital services. The findings are not directly comparable to digital services studies, where interactions are documented in the form of full transcripts of the conversation and links to services. Our data, however, stems from observation, during which significant parts of the interaction may be missed. Although [Radford and Connaway \(2013\)](#) discuss the advantage of studying f2f interactions and the possibility of including body language, it is not always easy to identify all kinds of paralinguistic communication. In addition, details of the conversation between the librarians and users may get lost during observation due to low voices or disturbances in the surroundings.

Conclusion

In conclusion, we return to the initial question of librarians' role at the reference desk. Many libraries have subject librarians that can be booked for scheduled meetings, and there has been a shift in reference desk duties toward inquiries of a short, simple, technical and ad hoc nature. Ann's example from our empirical material illustrates such a simple technical request, even if it is one of the more extended interactions that occur at the reference desk in our material. Instead of interpreting our results to support the conclusion that there is no more reference work to be done at the reference desk, we believe that our results instead indicate lost reference work opportunities. More than half of the inquiries in our data concerned collections and procedures, but instead of initiating a reference interview, the librarians settled for a quick conclusion in all cases. The user asking for help to find a specific book may just want to obtain the book and leave, but there could also be an information need that requires more than the requested book to be satisfied. What we missed in our material were proactive attempts to develop the initial interaction toward a reference interview. An interest to engage in the user's information needs that lie behind wanting to get hold of a specific item of the library collections could have been shown by subtle means, such as, "here it is. Would you like to see if we can find more items on this topic now? Or if you are in a hurry, you are welcome to come back later."

Changes in library services and the possibility of searching through library collections online and similar materials in public search engines may have changed the users' perceived need to approach the reference desk for an information search. However, this does not equate with the conclusion that the librarians' competence is not needed. Librarians need a different strategy to get involved with the users and their information needs. Instead of waiting for the users to approach the desk to resolve their information needs, the librarians should approach them with this aim. Our study demonstrates that librarians must regularly engage to actively invite the users to talk about their aims and reasons for borrowing a specific item in the library collection or for learning about the library's procedures. An engagement in the users' goals opens an opportunity to reveal new aspects of their information needs and of the library collections, for users who, perhaps – as much current research indicates – overestimate their search skills ([Mahmood, 2016](#)) and possibly even their understanding of what information they need ([Cole, 2011](#); [Taylor, 1968](#)). At the same time, the librarians need to use their competence – both in reference interviews and search skills – to stay up-to-date.

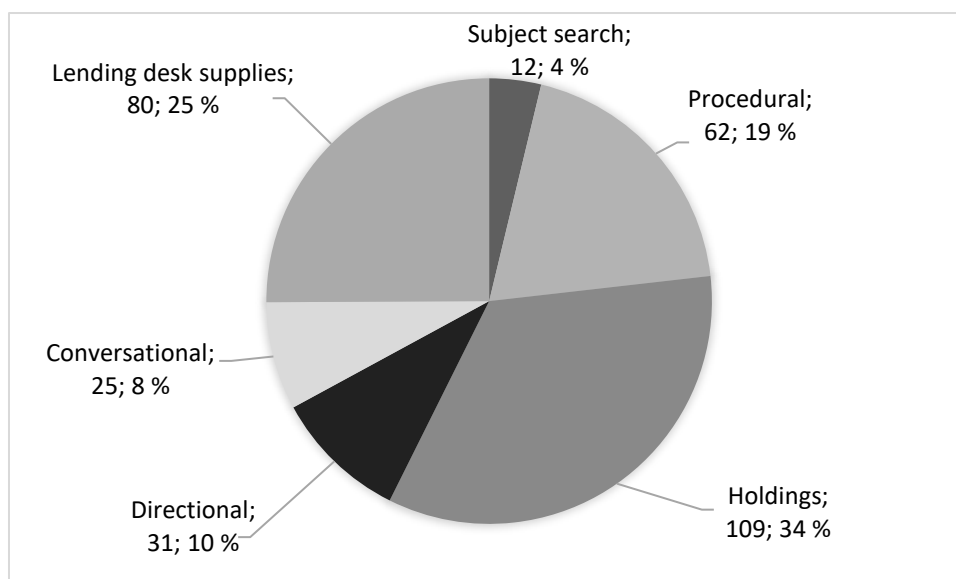
The low level of engagement in revealing unexpressed information needs during reference desk interactions risks creating a negative spiral, where the users' expectations toward library services in general and the reference desk in particular are bound to decrease. In addition, the librarians may lose their expertise in carrying out reference interviews as a

consequence of limited practice. As a result, people are left to meet their information needs unaided, and at the same time, the librarians may find their work less rewarding. This development is not positive for the users or the librarians. Therefore, we urge librarians to strive for more positive development and decisively seek out opportunities to engage in ad hoc reference interviews in the library, particularly at the reference desk. Reference work and reference interview techniques should be an integral part of the continuous discussion and development of academic libraries. RUSA's reference interview techniques may need to be revised to better reflect today's busy, technology-savvy users surrounded by information overload to support this development.

Table I. Categories of librarian-user interaction

Table I Categories of librarian-user interaction		
Category	Name	Description
1	Subject search	User asking for documents about a subject.
2	Ready reference	Easily answered questions about facts, topics or other issues that the librarian typically will find in the reference section or know by heart.
3	Procedural a) library b) b) IT	Questions related to a) using the library system, understandings shelf arrangements and similar issues and b) general computer/IT use
4	Conversational	Users wanting to have a general conversation, not related to using any library services
5	Holdings a) questions b) checking in/out	Questions about items in the collection, checking in/out
6	Research	Supporting research work through explorative searching and browsing.
7	Inappropriate	Personal questions and other questions not appropriate at a reference desk
8	Directional	Questions on how to find a particular room, service etc. in the building
9	Readers advisory	Questions for recommendations of books to read.
10	Lending desk supplies	Users asking to borrow staplers, mobile chargers, cables etc.

Figure 1 Distribution of inquiries



References

- Alexander, S. and Wakimoto, D.K. (2019), "Exploration of reference models in a public university system", *Reference Services Review*, Vol. 47 No. 1, pp. 21-36, doi: [10.1108/RSR-08-2018-0062](https://doi.org/10.1108/RSR-08-2018-0062).
- Arnold, J. and Kaske, N.K. (2005), "Evaluating the quality of a chat service", *Portal: Libraries and the Academy*, Vol. 5 No. 2, pp. 177-193, doi: [10.1353/pla.2005.0017](https://doi.org/10.1353/pla.2005.0017).
- Baker, L. (2006), "Observation: a complex research method", *Library Trends*, Vol. 55 No. 1, pp. 171-189, doi: [10.1353/lib.2006.0045](https://doi.org/10.1353/lib.2006.0045).
- Bandyopadhyay, A. and Boyd-Byrnes, M.K. (2016), "Is the need for mediated reference service in academic libraries fading away in the digital environment?", *Reference Services Review*, Vol. 44 No. 4, pp. 596-626, doi: [10.1108/RSR-02-2016-0012](https://doi.org/10.1108/RSR-02-2016-0012).
- Bishop, B.W. and Bartlett, J.A. (2013), "Where do we go from here? Informing academic library staffing through reference transaction analysis", *College and Research Libraries*, Vol. 74 No. 5, pp. 489-500, doi: [10.5860/crl-365](https://doi.org/10.5860/crl-365).
- Bronstein, J. (2011), "The role and work perceptions of academic reference librarians: a qualitative inquiry", *Portal: Libraries and the Academy*, Vol. 11 No. 3, pp. 791-811, doi: [10.1353/pla.2011.0032](https://doi.org/10.1353/pla.2011.0032).
- Cole, C. (2011), "A theory of information need for information retrieval that connects information to knowledge", *Journal of the American Society for Information Science and Technology*, Vol. 62 No. 7, pp. 1216-1231, doi: [10.1002/asi.21541](https://doi.org/10.1002/asi.21541).
- Empey, H. (2010), "Transaction analysis of interactions at the reference desk of a small academic library", *Partnership: The Canadian Journal of Library and Information Practice and Research*, Vol. 5 No. 2, pp. 1-17, doi: [10.21083/partnership.v5i2.1183](https://doi.org/10.21083/partnership.v5i2.1183).
- Johnson, A.M. (2019), "Connections, conversations, and visibility how the work of academic reference and liaison librarians is evolving", *Reference and User Services Quarterly*, Vol. 58 No. 2, pp. 91-102, doi: [10.5860/rusq.58.2.6929](https://doi.org/10.5860/rusq.58.2.6929).
- Logan, J., Barrett, K. and Pagotto, S. (2019), "Dissatisfaction in chat reference users: a transcript analysis study", *College and Research Libraries*, Vol. 80 No. 7, p. 925, doi: [10.5860/crl.80.7.925](https://doi.org/10.5860/crl.80.7.925).
- Magi, T.J. and Mardeusz, P.E. (2013), "Why some students continue to value individual, face-to-face research consultations in a technology-rich world", *College and Research Libraries*, Vol. 74 No. 6, pp. 605-618, doi: [10.5860/crl12-363](https://doi.org/10.5860/crl12-363).
- Mahmood, K. (2016), "Do people overestimate their information literacy skills? A systematic review of empirical evidence on the Dunning-Kruger effect", *Communications in Information Literacy*, Vol. 10 No. 2, pp. 199-213, doi: [10.7548/cil.v10i2.385](https://doi.org/10.7548/cil.v10i2.385).
- Maloney, K. and Kemp, J.H. (2015), "Changes in reference question complexity following the

implementation of a proactive chat system: implications for practice”, *College and Research Libraries*, Vol. 76 No. 7, pp. 959-974, doi: [10.5860/crl.76.7.959](https://doi.org/10.5860/crl.76.7.959).

Nolan, C.W. (1992), “Closing the reference interview: implications for policy and practice”, *RQ*, Vol. 31 No. 4, pp. 513-523.

Nordlie, R. (1999), “User revelation: a comparison of initial queries and ensuing question development in online searching and in human reference interactions”, in Grey, F., Hearst, M. and Tong, R. (Eds), *Proceedings of the 22nd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Berkeley, CA, pp. 11-18, doi: [10.1145/312624.312618](https://doi.org/10.1145/312624.312618).

Radford, M.L. and Connaway, L.S. (2013), “Not dead yet! a longitudinal study of query type and ready reference accuracy in live chat and IM reference”, *Library and Information Science Research*, Vol. 35 No. 1, pp. 2-13, doi: [10.1016/j.lisr.2012.08.001](https://doi.org/10.1016/j.lisr.2012.08.001).

Radford, M.L., Connaway, L.S., Confer, P.A., Sabolcsi-Boros, S. and Kwon, H. (2011), “‘Are we getting warmer?’ Query clarification in live chat virtual reference”, *Reference and User Services Quarterly*, Vol. 50 No. 3, pp. 259-280, doi: [10.5860/rusq.50n3.259](https://doi.org/10.5860/rusq.50n3.259).

Ross, C.S., Nilsen, K. and Radford, M.L. (2019), *Conducting the Reference Interview*, 3rd ed., American Library Association, Chicago.

RUSA (2008), “Definitions of reference”, available at: www.ala.org/rusa/guidelines/definitionsreference (accessed 14 August 2020).

RUSA (2013), “Guidelines for behavioral performance of reference and information service providers”, available at: www.ala.org/rusa/resources/guidelines/guidelinesbehavioral (accessed 14 August 2020).

Saunders, L. and Ung, T. (2017), “Striving for success in the reference interview: a case study”, *The Reference Librarian*, Vol. 58 No. 1, pp. 46-66, doi: [10.1080/02763877.2016.1157778](https://doi.org/10.1080/02763877.2016.1157778).

Stevens, C.R. (2013), “Reference reviewed and re-envisioned: revamping librarian and desk-centric services with LibStARs and LibAnswers”, *The Journal of Academic Librarianship*, Vol. 39 No. 2, pp. 202-214, doi: [10.1016/j.acalib.2012.11.006](https://doi.org/10.1016/j.acalib.2012.11.006).

Taylor, R.S. (1968), “Question-negotiation and information seeking in libraries”, *College and Research Libraries*, Vol. 29 No. 3, pp. 178-194, doi: [10.5860/crl_29_03_178](https://doi.org/10.5860/crl_29_03_178).

Walz, J.L., Jones, A., McCoy, E. and Rice, A.C. (2018), “Annotated bibliography: the reference desk: grand idea or gone down the river?”, *The Christian Librarian*, Vol. 61 No. 2, p. 8.

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