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## **Reference Librarians at the Reference Desk in a Learning Commons: A Mixed Methods Evaluation**

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ABSTRACT (50 words per Instructions to Author)

At the University of Massachusetts Amherst's W.E.B. Du Bois Library's Learning Commons, only Reference librarians staff the Reference & Research Assistance desk. Surveys, a focus group, reference question transcriptions, and question-type tallies indicate this service model is strongly preferred by users and librarians over the previous tiered model.

## INTRODUCTION

The University of Massachusetts Amherst Learning Commons (LC) in the W.E.B. Du Bois Library is busy with students engaged in study, research, writing, collaboration and socializing 24 hours a day five days a week, closing only on Friday and Saturday nights during the semester. Gate counts for comparable months increased 202% after the facility opened in October 2005, from 39,376 in April 2005 to 118,867 in April 2006. At several specialized service points in the Learning Commons, students can get help not only from Library staff and student assistants, but also from the staff of academic support units from elsewhere on campus. On the Entrance level are Circulation Services, the Information desk for community, campus and building directional questions, and a café called the Procrastination Station. Upstairs is the Learning Support Services. Downstairs on the Lower Level are the Writing Center; service points for the offices of Academic Advising and Career Services; the Learning Commons & Technical Support (LC & TS) desk, staffed jointly by the Library and the Office of Information Technology; and the Reference and Research Assistance Desk (RRAD), staffed exclusively by Reference librarians.

-----FIGURE 1: Learning Commons Floorplan -----

The Learning Commons Coordinator maintains communication between service providers through meetings, email and a blog, so a student approaching any desk with any of a wide range of academic needs can have some basic questions answered immediately, or is smoothly referred to experts at another desk within the facility. The popularity of this network of on-demand, in-person services, plus the LC's combination of individual, quiet, and collaborative study areas, suggests that library-as-place even more important today even as libraries expand their online presence.

Before the Learning Commons opened, the Reference desk was the only service point on the Lower Level. It was staffed by Reference librarians, library support staff, and student workers following a tiered reference model. Tech-savvy students at the Reference desk were trained to help with saving,

downloading, and printing while Reference librarians answered the reference questions. But funneling questions to the right person didn't always work efficiently. Librarians would sometimes become caught up in a deluge of printing, equipment and software questions and need to rush the real reference questions in order to manage the line, while, if the librarian was occupied, student assistants sometimes fielded reference questions beyond their training, providing incomplete or inefficient answers and occasionally failing to refer. Training and supervising each semester's new batch of students was laborious. Furthermore, as UMass Amherst computerized many functions, from course registration to taking quizzes to setting up debit accounts, library computers were increasingly used for purposes for which neither librarians nor students at the Reference desk could provide informed support.

As the LC idea developed, with its range of expert service providers, it became clear that the Reference desk could step back from its tech support role, providing an opportunity to rethink its desk staffing model. Reference librarians, all of whom are generalists with one or more subject specialties, are active in providing a range of off-desk reference services, through personal email, blogs, instant message, a Chat service (OCLC QuestionPoint), liaison reference librarian office hours in some academic departments, personal contacts resulting from liaison and instruction activities, and research consultations. However, the department remained committed to providing expert, face-to-face, on-demand research help as well. A new staffing model might improve the quality of that service.

The LC design process involved many stakeholders. Planners described the function of the newly-configured reference service point to a large student focus group and asked them to name it. These current college students associated the services provided at the service point with the word "research" rather than the more traditional "reference," so they opted to call it the Reference & Research Assistance Desk (RRAD).

The RRAD is now staffed only by Reference librarians. Student assistants and library classified staff moved to the nearby Learning Commons and Technical Support desk, LC & TS, which is also

staffed by technical experts from the Office of Institutional Technology. Reference librarians are working about the same amount of hours at the RRAD as they did under the tiered model, but the type and number of questions they are answering has changed. Reference librarians handle a lower overall volume of questions because directional questions are funneled to the Information desk directly inside the building entrance, and technical questions to the LC & TS desk. They are able to specialize in providing expert generalist research assistance in-person on demand to the Library's broad range of users, and provide the same assistance via phone, email and instant message, using electronic resources and the nearby print reference collection. A glassed-in consultation room behind the RRAD can be used on demand for relaxed, lengthier questions, and research consultations by appointment.

The RRAD is staffed 8:30 a.m. to 9 p.m. Monday through Thursday; 8:30 a.m. to 6 p.m. Friday; 10 a.m. to 6 p.m. Saturday; and 1 p.m. to 9 p.m. Saturday. Two librarians cover from 10:30 a.m. to 6 p.m. Monday through Thursday. During the week of April 9-15, 2006, chosen because it represents a typical period three weeks before many research papers are due, a mean of 8.4 questions were received when the desk was double-staffed, allowing ample time for a substantive interaction. A single librarian covers the quieter times: Fridays, Saturdays and Sundays, as well as 8:30-10:30 a.m. and 6-9 p.m. Monday through Thursday. During the same April week librarians on these shifts handled a mean of 4.7 questions per hour. Overnight when the Reference desk is closed, the LC & TS can get users started with the library catalog and the database locator while providing referrals to Reference librarians.

## PROBLEM STATEMENT

The University of Massachusetts Libraries are the largest public university research library in New England with 5,900,000 volumes and microfilms, and 14,500 periodical subscriptions in 2006. They supports the curricular and research needs of faculty, staff and a mostly residential population of about 19,000 undergraduate FTEs and 4,300 graduate student FTEs at the flagship campus of the University of

Massachusetts. The Integrated Sciences and Engineering Library is the only branch library. The RRAD desk in the Learning Commons of Du Bois Library is one of a spectrum of on-and off-site mechanisms by which Research and Instructional Services provides research assistance. It is characterized by high visibility, immediate human contact with friendly experts, and proximity to other desks providing expert help with technology, writing, advising, and more, which the Library brought into the Learning Commons. While many studies have investigated tiered reference models, no study to date in the library and information science literature has measured the effectiveness of the specialist-staffed reference desk as part of a suite of expert services provided in a Learning Commons. This study was undertaken to discover the extent to which users and reference librarians at W.E.B. Du Bois Library embrace and are satisfied with the RRAD model of reference. The presence of the Learning Commons and Technical Service desk freed up reference librarians to concentrate on their core mission of supporting the research process. In this service-intensive environment, specialization succeeds because of collaborative communication, training and referral. The model evaluated in this article may be appropriate for other large academic libraries.

## RESEARCH QUESTIONS

W.E.B. Du Bois Library's back-to-the-future Reference desk staffing model and the larger Learning Commons facility are both responses to the perceived learning styles and research practices of millennial students. Under the RRAD model, Reference librarians are spending upwards of 15% of their workweek at the desk. To justify this significant investment of professional staff time, it seemed important to evaluate the reception of the RRAD model by current users, and to get a sense of whether questions are a better match for the librarian's time and expertise under RRAD or the previous tiered model. Specifically, this study investigates:

1. Does this model of reference desk service – specialized, face-to-face, on-demand research assistance from experts, with referrals to nearby service points for technology, writing, advising, career, tutoring, adaptive technology, and other help - meet the needs of today's users?
2. What are the characteristics of the questions received at the desk, compared to those received under the tiered model?
3. Are students likely to seek out the RRAD when they need help with research?
4. Are they satisfied with this model?
5. For librarians who have worked in both models, what are their perceptions of the advantages and disadvantages of the tiered and RRAD models?

## LITERATURE REVIEW

While there is general agreement within the professional literature that information seeking has become such a complex process that people want, and need, various types of expert support to navigate it successfully; that librarians must provide users with this help where the users are, or the profession risks obsolescence; and that technology and directional questions take time from reference questions at the desk,<sup>1</sup> there is strong disagreement about the appropriate desk staffing response. It is well-known that desk counts declined dramatically through the 1990's as resources became available online. The literature on resultant changes in academic libraries focuses mostly on two themes, reduction of librarian time at the reference desk, and new online reference services provided by professional librarians.<sup>2</sup>

A number of means have been tried, or proposed, to reduce Reference librarian time at the desk. As Jerry D. Campbell, the former dean of libraries at University of Southern California, puts it, "With all the demands that we have in trying to remain relevant, what is the value of having a highly skilled subject specialist sitting at a desk?"<sup>3</sup> A common solution to this perceived problem arose in the 1990's and is still going strong: tiered reference, which adds support staff and/or students to the Reference desk to handle

technology and directional question. Variations put only students and staff at the Reference desk and provide access to librarians only by referral;<sup>4</sup> combine Reference and Circulation;<sup>5</sup> or do away with the reference desk altogether.<sup>6</sup> When studied, models where front-line helpers aren't reference librarians tend to be less satisfactory to users for a variety of reasons: unfriendly staff,<sup>7</sup> directing rather than assisting,<sup>8</sup> failure to refer to librarians.<sup>9</sup> Reference librarians were "uniformly viewed as helpful, competent, and knowledgeable, as excellent resources, that is, for patrons who could find them."<sup>10</sup> Even the presence of a reference librarian can improve the quality of answers provided by student assistants and support staff. A study at Brandeis showed that when the reference librarian was available in an office nearby, the rate of correct responses by students is 69% but it was 44% when she was absent altogether.<sup>11</sup> Similarly, support staff accurately handled questions 76% of the time when a reference librarian was with them at the desk, but only 58% if on their own, at the University of Illinois Champaign Urbana.<sup>12</sup>

Access to reference librarians may be even more important to today's undergraduates, who prefer expert help.<sup>13</sup> Anecdotally, Davis, who is promoted as a Next Gen librarian by *Library Journal*, stresses interaction. Though "a means of boosting reference statistics," quick interactions run the risk of "negative long-term results, particularly for users, who may lose faith in the library's ability to help them"<sup>14</sup> and look elsewhere for support, or proceed without the value-added services provided by Reference.

Next-Gen learning styles are also well served by the range of services provided in the Learning Commons. The conceptual literature on library Commons outlines the potential of these collaborative spaces - ideally, collaborative both in terms of available student study space and the provision of a range of student support service points - for keeping academic libraries relevant and meeting Next-Gen needs at a higher level.<sup>15</sup> Its components are in such demand that Schill and Toner's survey of 171 recent college and academic library renovations shows all of them increased three key LC components: group study rooms, general access computers, and seats with wireless access,<sup>16</sup> and Gardner's survey of users of the

University of Southern California shows demand for certain LC features such as computers and collaborative and individual study rooms is already outstripping demand.<sup>17</sup>

At its best, the Commons provides a service-rich environment with easy referral among an array of experts, but many Commons use some version of tiered reference model in this new environment. For example, Nozero describes desks staffed by both Reference librarians and library support staff at the University of Nevada Las Vegas.<sup>18</sup> MacWhinnie outlines an interesting array of staffing arrangements by the institutions she studied, many of which combine student workers with staff and librarians at central information desks<sup>19</sup>. However, there may be a trend towards a professionalization of the Reference desk. At UNLV students working the 6-9 p.m. shifts have been replaced by a professional librarian.<sup>20</sup> MacWhinnie acknowledges that, “Ideally, the IC would be staffed by professional reference librarians and highly-trained technology staff to provide the best quality service for users.”<sup>21</sup> In her view, the complexity of library resources provided in a Learning Commons creates a “greater need for research assistance from librarians”<sup>22</sup> and goes on to state that “A related issue is the librarian’s loss of professional identity”<sup>23</sup> when they handle routine technical help at such a volume that eclipses their professional role.

## METHODOLOGY/PROCEDURES

The present study relies on data gathered from a variety of sources. From April 10-12, 2006, from 8 a.m. to 9 p.m., for each reference question received at the RRAD desk, the time of day, the topic of the question, the purpose (categories here were personal, short paper, paper, class assignment, annotated bibliography, comps and dissertation), type of questioner (undergraduate, graduate, faculty, staff, or community member), and length of question were recorded. This period was chosen because it falls about three weeks before many research papers are due, so it is usually a moderately busy time. Researchers compared the total number and type of questions received during that period to a comparable

period before the Learning Commons was open, April 11-13, 2005. A Focus Group was recruited from among these April reference questioners, held May 9, 2006 6:15 p.m. – 8 p.m. in the Library. Pizza, free drinks and parking vouchers were provided to the ten participants, of whom eight were undergraduates, one a staff member and graduate student, and one an instructor and international graduate student. It should be borne in mind that focus group participants are more experienced users of Reference services, having been recruited from among those who have asked reference questions at RRAD.

In January 2007, librarians who had staffed the desk under both the old and new models were surveyed. They were asked to identify in writing up to three advantages, and three disadvantages, of both the RRAD model and the previous tiered model, and to rank their answers. Of twelve librarians who worked under both models, eleven responded. Researchers also used data from other assessment projects which looked at the Learning Commons more generally: gate counts, and a survey of Learning Commons users taken on March 14, 2006.

1. Does this model of reference desk service – specialized, face-to-face, on-demand research assistance from experts, with referrals to nearby service points for technology, writing, advising, career, tutoring and other help - meet the needs of today's users?

The library entrant survey of 3/14/06 showed that library entrants overwhelmingly preferred to go to the desk for reference interactions. Face-to-face reference interactions were strongly preferred. To a lesser extent, users were also willing to try telephone, chat, and email. One student in the focus group said when she was in the stacks looking for a book, it was useful to be able to call the RRAD for help rather than come back to the desk. It should be noted that library entrant survey findings imply off-desk face-to-face interactions would be valued too: 89% would find a one-on-one consultation with a reference librarian helpful, and 78% expressed interest in having the librarian hold office hours in the academic department. Within the library, respondents usually preferred to approach the desk rather than have the librarian approach them. Of surveyed library entrants, 44% expressed interest in having

librarians rove the floor, but focus group participants were not as supportive of the idea. They were concerned about privacy and interruptions. One student said, “I don’t want that restaurant atmosphere where somebody constantly asks, ‘Is everything all right?’” They felt the desk shouldn’t be left unattended in favor of roving.

-----Figure 2: Modes Desired for Reference Interaction (Library Entrants Survey, March 14, 2006) --

Focus group participants said their needs were satisfied by the RRAD model. When asked, “Did you get the answer you hoped for?” nine of ten said yes. A striking finding was how highly students valued learning the research process during the reference interaction. Seven of eight respondents said they approached the RRAD expecting to be taught to do research on their own, while one expected a quick answer and two expected both a quick answer and some instruction in the process. Unprompted, some participants expressed a desire for training in the research process through a basic class for all incoming students. Both librarians and focus group participants remarked that adequate staffing is required to make the RRAD model (and certainly, an expanded instruction program) work.

## 2. What are the characteristics of the questions received at the desk?

All data sets confirmed that users approach RRAD expecting assistance with research for papers of all types, assignments, and exams, and for help locating known books and journals. Non-directional, non-technical questions received at RRAD between April 10-12, 2006, were appropriate for Reference librarians. Ninety-nine questions, or 67%, were for help with research; 44, or 30%, were for known item look-ups, and the remaining five, or 3%, were questions about citation styles.

Since the advent of the Learning Commons with its Technical Support & Learning Commons desk, the percentage of technical questions handled at the RRAD has declined greatly. It appears that Reference librarians are spending their time on the right type of questions.

-----FIGURE 3: Comparative Question Count-----

Focus group participants confirmed that they approach RRAD for help with research. Of the nine who responded, three each were writing a paper or looking for a book, two were preparing for an exam, and one was doing legal research.

Focus group participants had different expectations for the amount of time the reference interaction would take. One expected to spend fifteen minutes, two expected to spend five minutes, and one expected to spend only a minute. But they were happy with the longer interactions that usually occurred because librarians' help exceeded their expectations. One student said, "Working with a reference librarian is not like going to MacDonald's. It's more complicated. She showed me some reference sources." Conversely, a final respondent thought his complex question might take an hour and he was actually helped in twenty minutes.

### 3. Are students likely to seek out the RRAD when they need help with research?

Students are attracted to the Learning Commons for its comprehensive suite of academic support services, and its individual, quiet and group study areas. While in the Learning Commons 39% of a library entrant survey with 717 respondents said they asked reference questions at the RRAD. Other modalities are used as well: instant messaging, email reference, various online research guides, and, after hours, basic reference help provided by the LC & TS. 61% said they had used one of these modalities when in the Learning Commons. Library entrants' reasons for not approaching RRAD showed there is work to be done to offset a perception of RRAD as a scary or frightening place.

-----Figure 4: Reasons do not Use RRAD (Library Entrant Survey, March 14, 2006)-----.

However, focus group participants, recruited from among experienced users of the RRAD, indicated that this perception can be overcome. In the focus group, one student said, "The desk wasn't like my preconception of being official and scary-looking. The librarians are friendly."

When asked “Why did you approach the desk?” students in the focus group confirmed that they can easily find their way to the necessary service point by observing location, signage and staffing. The RRAD is one of the first things students see when entering the Lower Level of the LC. Wording for signage, determined by earlier student focus groups convened during planning for the LC, has proved effective. Focus group participants also said they were cued to desk function by the “feel” of staff at each. Those at the Learning Commons and Technical Support Desk (LC & TS) was described as younger, busier, less formal, less patient, and more “techy.” By contrast, staff at the RRAD was seen as older, quieter, more “official-looking,” and “like they might know more,” according to one sophomore.

---- Table 1: Perceptions of the Traits of Staff at Two Service Desks (Focus Group Data, May 9, 2006)---

Referral between service desks is working: all focus group participants said they’d been sent from the Entrance Level General Information Desk to the RRAD for help with research. Librarians who staff the RRAD identified its unique purpose, clear name, and high visibility location as factors making it clear to users that the RRAD is the place to get help with research. Some librarians said they were concerned initially that students wouldn't know which desk to approach for what service, but it is clear from working at the RRAD that students quickly figured out which desk provided which service. The focus group confirmed this perception.

#### 4. Are they satisfied with this model?

All focus group respondents said they would come back to RRAD for help. As one, a graduate student and teaching assistant, said, “Reference is positive. They spend plenty of time helping me find the answers to my questions. It’s magic. I refer my students.”

-----Figure 5: Satisfaction with Service at the RRAD (Focus Group, May 9, 2006)-----

What users like best about the RRAD model is the reassuring nature of face-to-face interaction with librarians. Uniformly, they said that positive, friendly Reference librarians overcame their feelings

of intimidation, embarrassment, and shyness. In the focus group, one student said “The librarians are friendly and will try to help you even if you ask stupid questions.” Another said, “The librarian was absolutely wonderful – she went above and beyond and I would look for her again.” As to the content of the interaction, the data shows that users value the teaching aspect of the interaction most. “Learning the steps” allows them to become more independent researchers, and learning how helpful librarians can be makes them comfortable returning to the desk when more help is needed. All students in the focus group expressed satisfaction with the level of research assistance provided at the RRAD.

----- Figure 6: Characteristics of User Experience at RRAD (Focus Group, May 9, 2006)-----.

5. For librarians who have worked in both models, what are their perceptions of the advantages and disadvantages of the tiered and RRAD models?

Eleven librarians wrote up to three advantages and three disadvantages of both the RRAD model and the earlier, tiered model. Several common themes emerged. The biggest advantage of the RRAD model, according to ten out of eleven, was the increase in quality of service: librarians conduct reference interactions better and more efficiently than staff and students who were perhaps more eager than qualified to help. In addition, five librarians cited the elimination of the need to train students as an advantage in the RRAD model.

The second most frequently mentioned advantage of RRAD over the tiered model is its clarified identity. It’s clearer to users that RRAD’s purpose is to provide expert research help. Under the earlier tiered model, one librarian elaborated, so many people staffed the desk, students weren’t sure who they were dealing with; referral between desk staff was often clumsy; and many questions were not answered by the best person, but by whomever was asked first. On the other hand, the fact that the old model entailed just one desk on the floor was cited as an advantage by five librarians: having only one desk meant there was no confusion about where students should ask questions.

Third, librarians valued the elimination of distracting tech, printer and photocopier questions, giving them more time to “do reference.” Though visits to the desk are down, librarians perceive that interactions are longer and of higher quality. One wrote, “Much to my surprise we are receiving more genuine reference questions under the new model than we have for several years. Is this because more people are using the Library or because our users are gradually learning about the services available to them at the Reference desk?”

One librarian cited working with another librarian as an advantage of the RRAD model because it fostered collaboration and information sharing. She wrote, “What I learn during my desk shifts informs all the other ways I do reference. This is the best training ground there is. And a job as complex as this requires constant training.”

The disadvantage of RRAD mentioned most often by librarians was the fact that referrals to other service points can slow down the user. One librarian wrote, “Perhaps some patrons are being shuffled too quickly to the LC & TS Desk. I will gladly show someone how to buy a copycard or retrieve a print if I’m asked because I understand how those systems work. I could refer, but at the moment it may seem like better [service] to take the person to the particular piece of equipment.”

Three librarians, all of whom often work single-staffed shifts, were concerned about workflow: covering IM and the phone were too much at times, while they felt under-occupied during quieter times. But one wrote, “Staffing levels have always been an inexact science. Sometimes one person is plenty, sometimes two people struggle to keep up. But once you take printer and photocopier questions out of the equation, it’s a fallacy to think the librarian is wasting her time at the desk if she’s waiting for reference questions when it’s slow. We all get work done on other responsibilities while we’re out there: class prep, collection development, liaison work, professional development.”

Two librarians mentioned the disadvantage of losing the collaboration with other library staff and student workers provided by the previous tiered model, which had kept them current with certain library policies and campus activities.

## CONCLUSION/SUMMARY

Providing quality reference service isn't easy, and any approach needs constant evaluation. Close attention to user needs will guide future changes in Reference staff priorities. For example, unexpected findings in the present research indicate three possible future directions: programmatic information literacy instruction, integration of library resources into the curriculum, and librarians spending more time in academic buildings outside of the library in high activity locations.

Reference service is most effective and efficient when the librarian has a presence at the point of need. This point, though, is different for different populations, research needs, and material types. Faced with declining traffic in the physical library many reference departments have reduced librarian time at the Reference desk. Instead, they're creatively seeking users' multiple points of need online via IM, chat, phone, email, and face-to-face outside the library in classrooms, labs, and cafés.

A well-designed Learning Commons can change the equation. When gate counts skyrocket because the space is designed with student needs foremost, it is an easier matter to meet the user where he or she is. At the University of Massachusetts Amherst, users, especially undergraduates, have made the Learning Commons the crossroads of campus. Here, a Reference desk can be the most efficient way to provide the face-to-face service by expert librarians that users and librarians in the present study both indicate they think works best, and which is shown to work best (as compared to service by support staff and/or students) in numerous studies. It should be stressed that many other duties – liaison and selector work, virtual reference, and the like – can often be accomplished between reference questions at the desk, so there is no loss of expensive staff time in waiting for questions, nor are librarians occupied in

answering technical or directional questions with other service points nearby. The model may apply in other LC settings.

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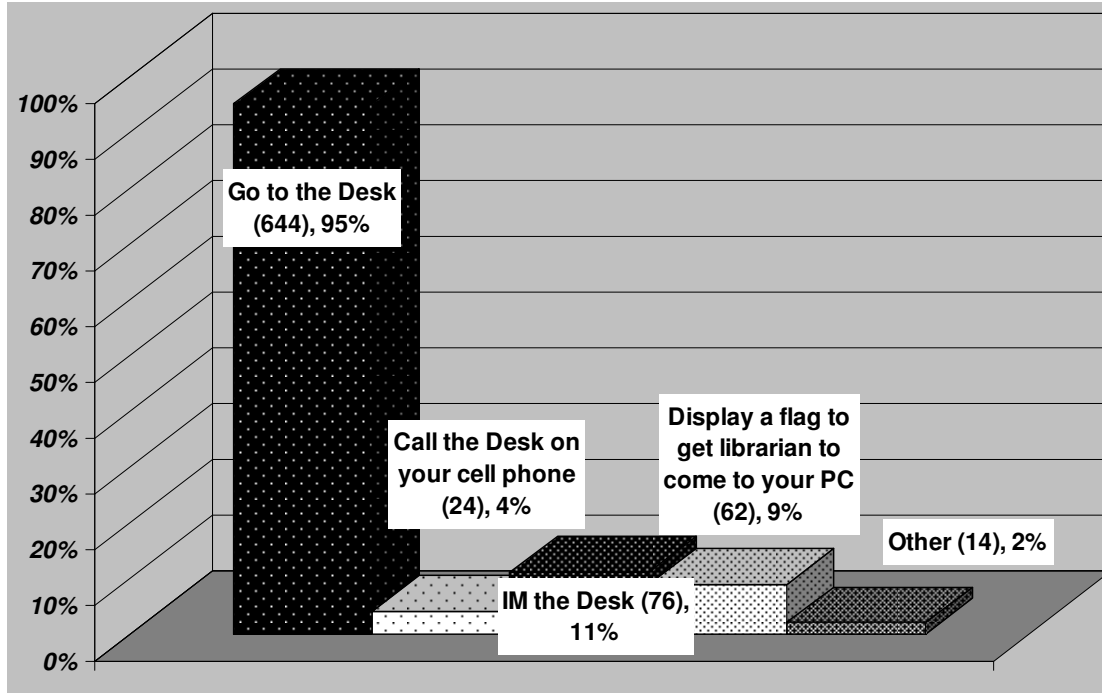
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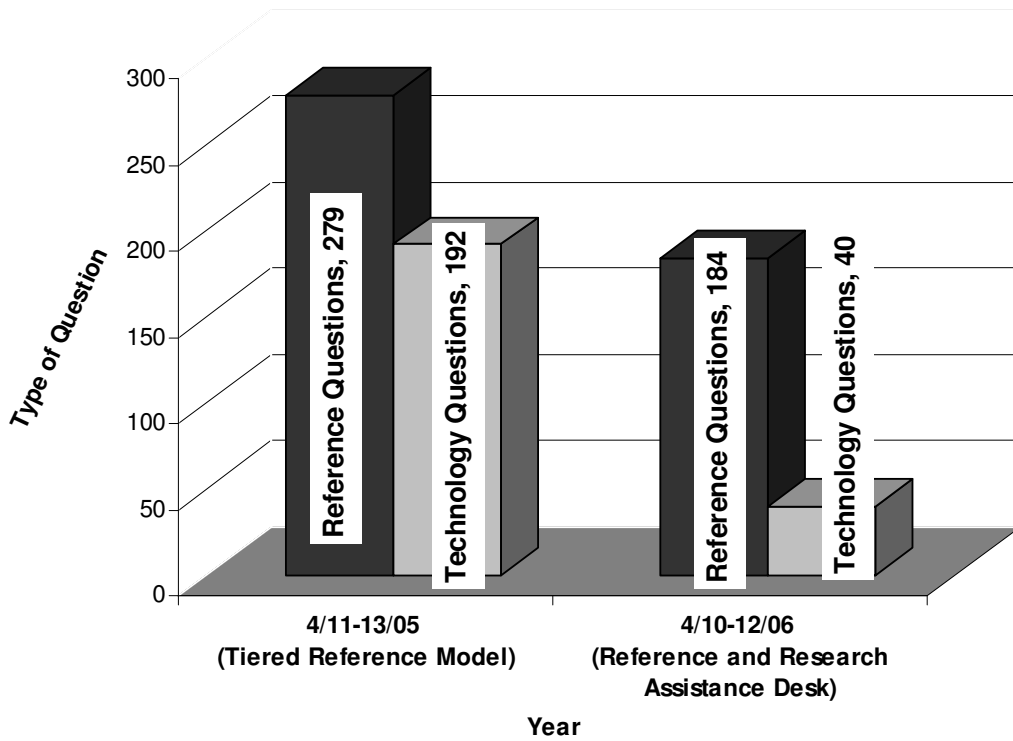
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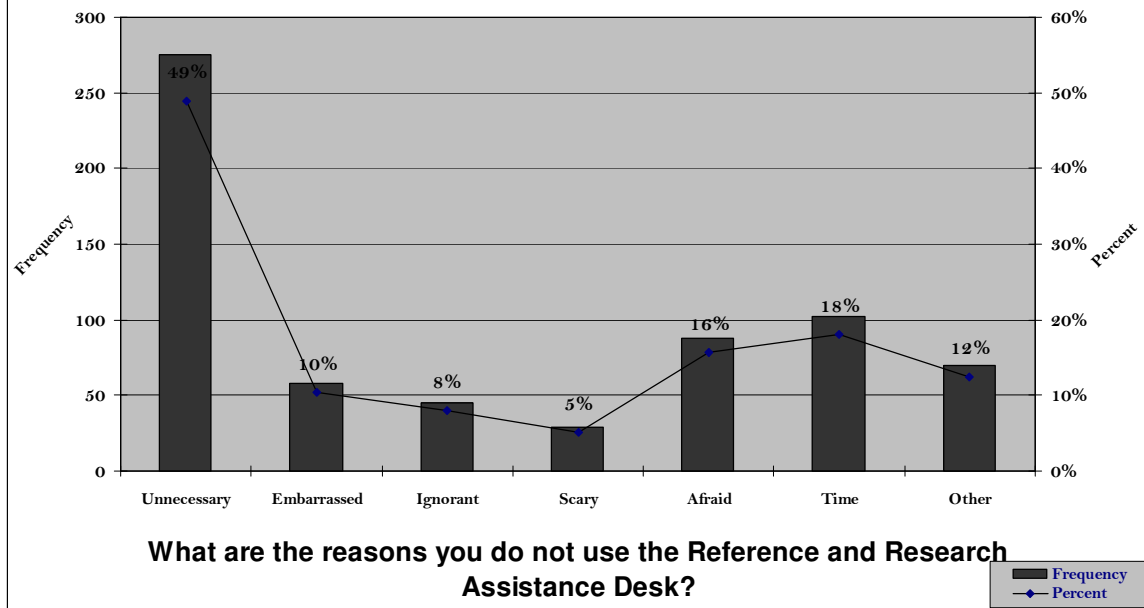
**Figure 2: Modes Desired for Reference Interaction**  
(Library Entrants Survey, March 14, 2006) [n = 717]



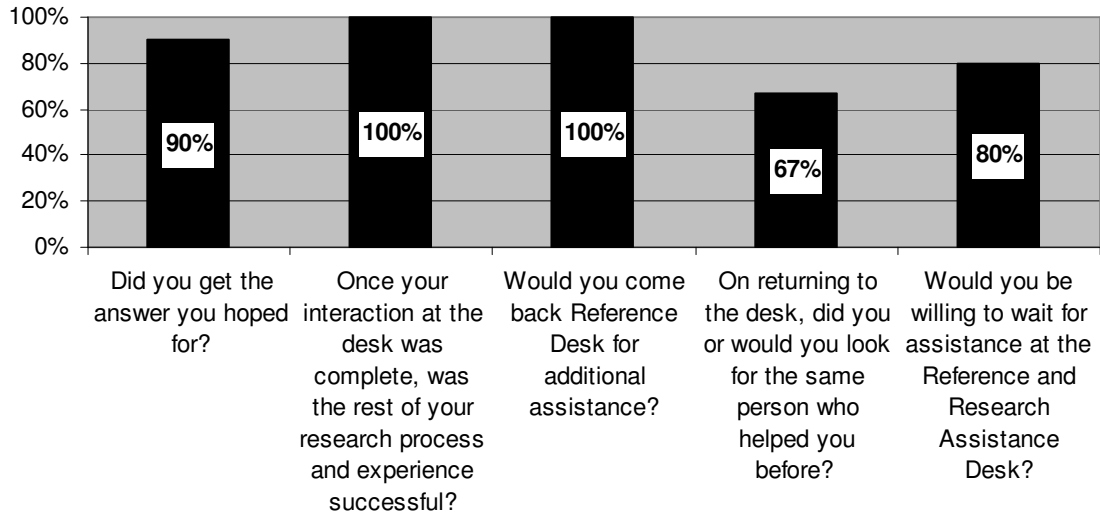
**Figure 3: Comparative Question Count**



**Figure 4: Reasons do not Use RRAD**  
(Library Entrant Survey, March14, 2006) [n = 562]



**Figure 5: Satisfaction with Service at RRAD  
(Focus Group, May 9, 2006) [n = 10]**



**Figure 6: Characteristics of User Experience at RRAD  
(Focus Group, May 9, 2006) [n = 12]**

