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Undergraduate Students' Perspectives on the Reference Transaction: A Pilot Study

Abstract: A qualitative user study examining the reference transaction role in four undergraduate students' information seeking process. Data was obtained through interviews, which were analyzed using a grounded theory approach. Findings show that participants sought no process intervention from reference librarians, had negative perceptions of the reference transaction, and valued independence during the research process. Areas for further research are highlighted.

Résumé : Une étude qualitative des utilisateurs examinant le rôle du processus de référence lors des recherches d'information de quatre étudiants de premier cycle. Les données ont été obtenues à l'aide d'entrevues analysées avec l'approche de la théorie ancrée. Les résultats montrent que les participants n'ont pas cherché à obtenir d'aide de la part des bibliothécaires de référence, qu'ils ont des perceptions négatives à l'endroit du processus de référence, et qu'ils valorisent l'indépendance durant le processus de recherche.

1. INTRODUCTION

Undergraduate students have the *potential* to access a wealth of quality information. It is important to emphasize potential, because students have to acquire technical and cognitive skills to navigate catalogues and databases, as well as critical thinking skills to distinguish poor information sources from educational and scholarly sources. Library instruction classes are one method for teaching these skills to students. However, it is not expected that all individual concerns can be addressed through instruction sessions. Therefore, libraries provide a variety of reference services, which are useful in addressing specific concerns of students during their search for information. However, a trend described in the reference services literature states that there has been a decrease in reference transactions in academic libraries (e.g., Kyrillidou & Young, 2003; Novotny, 2002). In other words, students are not making as much use of the reference librarian as they have in the past, which may be affecting current students' abilities in accessing all quality information. It is, therefore, important to gain an understanding of students' perspectives on the role of the reference librarian and the reference transaction within their information-seeking strategies.

2. REFERENCE SERVICES LITERATURE

Reference services can encompass a variety of services, such as one-on-one mediation, provision of pathfinders or directories, group instruction, creation of signage, gathering resources in anticipation of needs, etc. (Bunge & Bopp, 2001). The focus for the reference transaction is on individualized mediation provided by a reference staff member to a person who requests the assistance during his or her information seeking

process. Novotny defined the reference transaction as “an information contact that involves the knowledge, use, recommendations, interpretation, or instruction in the use of one or more information sources by a member of the library staff” (2002, p. 9). Regardless of the method of access to this reference service, the user most often initiates the reference transaction. He or she either has to walk up to a reference desk, call reference services, or click on the link to email or chat reference. Therefore, it is essential in providing this service that we recognize the factors that prevent the initiation of a reference transaction.

Novotny’s definition of the reference transaction, as stated above, appears to be limited to guidance with information sources. Kuhlthau, in addition, suggests that there is potential for reference staff to play a role in mediating not only the source but also the “intellectual process” during information seeking (2004, p. 127). To address both source and process problems, Kuhlthau models the concept of “zones of intervention” (2004, p. 128). This concept involves five different zones (Z1-Z5) in which each zone requires a somewhat different type of intervention, ranging from intervention by the user him/herself (Z1), source intervention (Z2-Z4), and process intervention (Z5). Each zone, aside from zone one, is discussed with the idea that a user has initiated the reference transaction. It is in the first zone where the user manages to fulfill his or her information need without intervention by a reference librarian. However, there is still a lack of understanding why users may be inclined to participate in either source or process intervention through reference transactions.

The causes for the decrease in reference transactions have been researched from a variety of perspectives. Novotny’s research focuses on the state of procedures for collecting reference statistics and urges the library community to commit to the development of effective procedures (2002). However, there is no guarantee that this will lead to a resurgence in reference transactions. Holiday and Li found in a user-focused study that “the Millennial Generation increasingly turns to the web rather than the library as its primary information resource” (2004, p. 356). Other studies suggest that many students consider utilizing librarians only as a last resort (Hayden, 2003; Kuhlthau, 2004). Perhaps students today value other resources over the reference librarian, or they may prefer to work independently without the assistance of others. Evidently, there are a wide variety of possible reasons for the decrease in reference transactions. Regardless, librarians believe in this service as is demonstrated by the increased methods of access to reference staff, which now include the traditional in-person and phone reference, asynchronous email reference, and live chat reference. As a valued service, it is important to understand the function of the reference transaction and how it can relate to the needs of students in this digital age.

3. INFORMATION-SEEKING BEHAVIOUR LITERATURE

There has been extensive research on information-seeking behaviours of undergraduate student populations (e.g. Branch, 2003; Fescemyer, 2000; Given, 2002; Hayden, 2003; Whitmire, 2004). Branch (2003) studied the impact of an information literacy course on the information-seeking behaviours of nontraditional undergraduates. She found that the information literacy course increased students’ perceived confidence in evaluating and finding information. A study was done on Geography students by Fescemyer (2000) that used citation analysis of student papers to gain insight into the types of sources students used. It was found that students relied on both print and

electronic sources. Given (2002) explored mature students' information-seeking behaviour and, amongst other findings, showed that the "everyday" context has important implications for providing information services (28). Furthermore, Hayden (2003) looked at information-seeking behaviours of senior undergraduate students in education, social work, and history. Whitmire (2004), on the other hand, studied a large sample of undergraduate students across disciplines to verify the Biglan model, suggesting that the patterns of information-seeking behaviour can be categorized by academic discipline.

Although much research has been done on undergraduate populations' information-seeking behaviour, further research is still needed on the role of reference services within students' information-seeking behaviour. Specifically, students' own perspectives of their information needs and the role of the reference transaction, needs to be examined. This paper presents a pilot study that explored how the reference transaction is related to undergraduate students' information-seeking behaviour. Specifically, it looked at the students' perspectives on their own strategies and how they dealt with obstacles they encountered during their information-seeking behaviour and whether the reference transaction played a role within their strategies or whether a reference transaction could have been beneficial.

4. RESEARCH GOALS

Three research goals were established for this study. First, the study was designed to explore the obstacles undergraduate students encountered during their information-seeking processes. Second, it set out to identify the resources undergraduate students use to overcome any obstacles they encounter. Third, the study explored undergraduate students' perceptions of the reference transaction and librarians, specifically those providing reference services.

5. PARTICIPANTS

Participants were recruited at the University of Alberta from certain Humanities and Social Sciences departments. Recruitment methods involved the distribution of a call for participants on student groups' listservs, use of posters in a variety of locations, and through word of mouth (snowball method). The criteria for participants included being an undergraduate student in a Humanities or Social Sciences program, at the University of Alberta. Furthermore, participants were required to be in their third or fourth year of study to ensure that they had experience writing papers that required the use of additional sources.

A total of four participants volunteered to participate. They consisted of three females and one male, ranging in age from 20 to 35. Participants were enrolled in an English, History, or Sociology degree. Three participants were taking their degree at the honours level, while one participant was contemplating switching into an honours level program. Pseudonyms are used to present individual comments from the interviews, in order to protect the participants' privacy. The participants are referred to as Tina, Christine, Brenda, and Ryan.

6. DATA COLLECTION

Each participant participated in a 45 to 60 minute audiotaped interview, which was fully transcribed. The Critical Incident Technique (CIT), originally developed by John C. Flanagan (1954), inspired the interview design. CIT is a technique in which a specific event is identified and explored from the participant's perspective. Recent studies of information behaviour have been making use of this technique and attest to its usefulness (e.g., D'Alessandro, Kreiter, & Peterson, 2004; Fisher & Oulton, 1999; Kracker & Wang, 2002; Urquhart et al., 2003; Zach, 2005). The main idea is to analyze events embedded in their natural context to determine which events led to specific consequences and make interpretation according to this (Angelides, 2001).

This study employed principles of CIT through retrospective data collection about two separate incidents in which participants described steps taken in their search for information for two separate papers. Participants were instructed before the interview to think of two recent papers they had written, one in which they felt comfortable finding information and one in which they had more trouble finding information. Utilizing a CIT approach, open-ended questions were designed to elicit responses about the steps students took throughout their information-seeking process for each paper, any obstacles they encountered, and the resources they used to do their work. In addition, open-ended questions were asked to gain insight into students' understanding of reference librarians and the reference transaction. Each interview also included questions about demographics (e.g. age, program of study).

7. DATA ANALYSIS

Although this was a small pilot study for the purpose of evaluating the methods used, the analysis of the data showed several emerging patterns that provide insight into potential areas for further study. A grounded theory approach was used for data analysis as inspired by Strauss and Corbin (1998), while making use of the principles of organizing qualitative data as outlined by Given and Olson (2003). Codes were established to identify data that related to the three research goals previously outlined (e.g., sources: professor, librarian, classmates, friends, family). The purpose of this analysis is for themes to emerge from the data as it is organized in the context of the research questions.

8. MAJOR FINDINGS

The major findings are presented in three sections. First, the obstacles that participants encountered are identified. Second, the strategies used by participants to deal with information-seeking obstacles are presented in three sections: the professor, other people, and other strategies. Third, participants' perceptions of librarians and the reference transaction are highlighted.

8.1 Obstacles

The participants in this study encountered a variety of obstacles during their information-seeking processes. Some of the obstacles that were identified included, difficulty with defining a reasonable topic, encountering unfamiliar concepts (e.g., case study, literature review), a lack of time, finding no results when searching a

database/catalogue, difficulty using library technology or concepts (e.g., how to search databases, how to access print articles), encountering sources only in foreign languages, and uncertainty as to what types of sources will provide needed information. The three most common obstacles that were identified with involved (1) a lack of time, (2) finding no results when searching a database/catalogue, and (3) difficulty defining the topic of a paper. These three obstacles will be examined in more detail below.

8.1.1 Lack of time

The participants suggest that time will limit them in the amount of research they do for a topic, where they get their information from, and whether they will go ahead with a topic or not. Tina, a 31 year old, fourth year Honours, Sociology student, mentioned that time is a factor when doing research for her papers:

“But yeah you have limits, right, to how long you’re going to search, especially for this one. For a PhD you probably want to search exhaustively, but you know, for an honours thesis you want to just say I really did, you know, I tried it, you know, I did as much as I could. As much as time allowed, right?”

Christine, a 20-year-old History major in her third year, thinking of switching into an Honours program, also demonstrated that time can be an obstacle in obtaining information. When asked what she would do when she could not find the full text for an article, she responded as follows:

“I could do an interlibrary loan and ask for them to photocopy it, but usually I just let it go, which is, because I just feel like, it’s not going to be possible in the amount of time that I’ve got and because like for the paper that I’m doing, which would never be over ten pages, it’s not worth it kind of thing.”

Brenda is a 21-year-old History student, currently in her fourth year and is also taking her program at the Honours level. Due to numerous deadlines, she decided to switch from a topic that was giving her difficulty, as she explained:

“I had a lot of essays due that week, like in that two week period, and this one actually got extended so that was nice, but I’m pretty sure it was due on a Tuesday and I was starting research on the Thursday before, so a bit of a time crunch. [...] So, I wanted to do something completely accessible and when I couldn’t find anything right away, I just decided, you know, to hell with this I’ll just do another topic, right?”

Assignments are generally constructed around deadlines, which has implications for the information seeking process and the resources that students make use of. In terms of the Five Zones of Intervention model (Kuhlthau, 2004), time will play a large factor in what zone of intervention may be reached. For example, a student may benefit greatly from intervention at Z5 where the student can acquire awareness of process, but due to limitations of time, the student may only want intervention at Z3 where relevant sources are provided. Furthermore, this study has also found that the reference transaction can be perceived as a waste of time, which complicates delivering intervention at the higher

zones even more. This finding will be discussed in more detail in the section on perceptions of librarians and reference transactions.

8.1.2 Finding no results

It appears here that participants of the study were focusing on tools that they were familiar with to find information, such as the catalogue, selected databases, or popular search engines. Nevertheless, they expressed difficulty in using the search tools and often came up with no results. For example, during Tina's attempt of gathering materials for a literature review she encountered no results when searching the databases:

“I'm searching databases like just searching it and it's, it's barely limited, it's very limited in that there's nothing being done on culture... I could be wrong but from what I've seen so far it's an article or two, but I don't think that would constitute very much study.”

One obstacle that Christine had difficulty with was that her search terms were highly specific and although results may have been relevant, there was very little recall:

“Sometimes maybe use the subject headings and then you get like an empty one that just gives you the same book...when you're looking for something specific.”

Brenda was also having difficulty with results when searching the databases. In explaining her search approach, she commented:

“I go on Academic Search Premier usually, because I find that, just for general topics it is really good, and so you know, I searched all the keywords, I looked for Constantinople, I looked for Orthodox, for Islam, for Muslim. Things like that that are specific enough to give me a hope of finding some articles that I needed, but I wasn't finding anything. And it was very frustrating. I tried that and I tried Jstore and both of them were like dead ends.”

Brenda encountered this same obstacle when she was writing a paper in a different discipline than she was used to. Here she described her approach to finding material on her topic:

“I looked in the library, like I looked through the catalogue, you know, Canadian Art, Art, Theory of Art, Philosophies of Art, Canadian Museums, Museums, Art Museums, you know, and then I kind of was not finding anything and so I turned to whatever Academic Search Premier, Jstore, and a couple of the visual arts databases; I don't know what they are now, I couldn't remember. But, even just typing in Canadian Art brought up nothing, and I was like, this is really hopeless. I'm not going to go any further now in this research direction.”

Ryan is a 21-year-old student in his third year of an Honours English program. He feels that within his program there is much less emphasis on the research, but more emphasis on the writing. He also stated that there is a lot of freedom to interpret what sources can be, for example:

“Anything that could be considered a text and she said text was quite open, it could include a video, or graffiti, or anything like that. She said anything you can argue is a text.”

When Ryan did require the use of library resources, he had a lot of difficulty. The fact that library resources were required became evident, as his usual strategy of searching Google delivered no results:

“Again, I went to Google and the poem I was analyzing was quite obscure so it didn’t really return any results [...] he had said that there are some things in Special Collections that we might be interested in, so I went down to Special Collections but I didn’t really know what to ask for and there was I think a man working there who was quite helpful, but the sources I was reading weren’t really relevant. So, I didn’t use anything from Special Collections, I used some [databases] that again I wasn’t, really didn’t know what I was searching for.”

Ryan’s approach to research is different from the other three participants in that he utilizes Google as his primary search tool. As we discussed his search strategies for one of his papers, it became evident that he does not fully understand how to use the catalogue and databases for research purposes and therefore relies on Google:

“I find that it is...you can be very general and it returns specific results. I find it, it’s very quick and with the library I don’t always know exactly the term to type in. Like if I’m searching the database or even just like, like the books, it’s quite difficult to, to be very specific, because I find in the library you have to be very specific. And so, I like Google, because it’s quite general.”

Ryan also mentioned that he avoids the use of online databases, because he finds them “quite difficult to navigate” and is apprehensive about using them.

The participants experienced some degree of difficulty in using search tools to find information, either caused by a lack of understanding of how the search tool worked, or using an inappropriate search tool for the information need presented. Leckie (1996) suggests that students are likely to use familiar tools to find information. A recent study on the use of resources by distance learning students, also demonstrated reliance on familiar tools and a reluctance to learn about different tools (de Jong & Branch, 2005). It is possible that students switch topics until the tools they are familiar with can provide them with needed information. Some students consult with their professor, if time permits, and hope that they are directed to the right materials. Although it appears that intervention could be appropriate, only one participant had approached a reference librarian before but none in the case of the examples provided above.

8.1.3 Defining the topic

Participants expressed difficulty in defining their topic, which led to problems in finding suitable sources of information. For example, Tina had a problem with narrowing down her topic. She said:

“Basically up until I wrote my research paper for the proposal my topic was still too broad. By December I hadn’t narrowed it down to something manageable I had to sort of re-look at everything and refocus myself again.”

Christine had difficulty in identifying what type of information source she needed, partially because she did not have a clear understanding of her topic:

“I didn’t really know what I was looking for either because I wasn’t sure of what I wanted was like things about the artist or primary documents where they would be interviews with the artists themselves, or writings by the artist or if I wanted sort of government documents, which are really hard to find, sort of like a soviet topic and then, whether I wanted to prove that in some way it was easier, in some ways, it was really hard because I didn’t sort of know, I guess, interpreting the topic, what [it meant].”

Various studies have found that students encounter difficulties with narrowing topics and navigating literature in a new area (Fister, 1992; Kuhlthau, 1990). Leckie (1996) believes undergraduate students do not have an understanding of the process for exploring new literature and defining a topic, commonly understood by expert researchers, such as professors. This is definitely an opportunity for a Z5 intervention in the model of Zones of Intervention. A reference librarian would be able to assist a student in developing a manageable topic. It is important that the reference transaction is not only seen for the purpose of resource discovery, but also learning about research processes.

8.2 Strategies

As the participants encountered a variety of obstacles, they also had to have some way of dealing with these obstacles. It was interesting to learn that students made use of people as resources to overcome their obstacles, but also made use of some type of strategy to work around the obstacle. The primary resource for overcoming obstacles was the professor, while the use of others as a resource was limited to two of the participants. Strategies that participants used included avoiding library tools, switching topics, and finding simply ‘adequate’ sources. The next sub-sections will examine the roles of (1) the professor, (2) other people, and (3) other strategies in terms of dealing with obstacles.

8.2.1 The professor

More than once did participants turn to their professor when they encountered an obstacle. Tina had described how she had difficulty in narrowing down her topic and that she did not really understand what a case study was. She turned to her professor for assistance:

“We talked about [what a case study was]...With my prof. And so I, we decided that the book that my other prof had written was good enough for a case study and so to base it on that.”

When asked about what she did to learn more about the literature review process, as this was another obstacle for her, she responded with “My prof gave me certain ideas” and then she went on to describe the process she undertook for her literature review.

In Christine’s case it was somewhat different. She had difficulty understanding the topic of one of her papers and what would help her “answer the question in a good way, in the best way possible.” In dealing with this, she said that she would have used her professor as a resource, but there wasn’t enough time. Instead, she felt that she just had to complete her paper with the resources that she had. When Brenda had difficulty finding materials for her paper, she also had to resort to her professor. She had searched some databases thoroughly, but her professor had to point out a database that she was not familiar with:

“He pointed me towards the, ATLA Religion Index and that was really helpful, because I hadn’t done much religious history before, so I didn’t know that this existed, but that is where I got most of my articles in the end.”

Brenda also explained that it is expected of students at her level to discuss issues with the professor:

“In 400 level seminars, you’re expected to go talk to the professor, it doesn’t become optional anymore, because they will tell you just in the course of an informal chat, whether you’re headed in the right direction or not. So, usually you can expect to sort of see them once or twice a term in their office hours, more if you’re having trouble finding stuff.”

As mentioned previously, Ryan made use of his professor by asking for guidance when he was unable to obtain results with Google. Again, a professor was relied on to provide guidance when an obstacle in the information-seeking process occurred. Hayden suggests that “[s]tudents perceive their professors as knowledgeable, interested in their assignment progress, as sources for appropriate references, and as possessing texts and articles which some instructors are willing to lend to students” (2003, p. 72). Hayden’s findings also suggest that students are more likely to approach their professors for guidance on their assignments and their pursuit for information, rather than approaching reference librarians.

8.2.2 Other people

The participants in this study commented very little on the use of other people to overcome the obstacles they encountered in their information-seeking processes. Christine made mention of a family member, with a Masters degree in library sciences, who was helpful in providing guidance on approaching the assignment:

“He was quite helpful as well, because he kind of steered me in the direction of doing like a historiography, because I didn’t really have an

idea of my own that I wanted to discuss and I was quite interested in this old debate that had been sparked by this one book and so it wasn't actually a kind of paper I have written before. And wasn't one that I was very familiar with either and so, um, it was quite helpful to talk with him too."

Brenda's professor had provided her with some contacts that did work in the area that she was studying and she was able to get names of authors this way. She also mentioned that if she had any questions about a research problem she would talk to a friend who is a librarian on campus:

"I don't know when the last time when I talked to a librarian about a research problem was. And, if I do need to ask somebody, I will go down to [the library] and talk to my friend, because, he works in roughly the same field as I do."

Although some of the participants indicated that throughout their degree they had had some interaction with reference librarians, the interaction was limited to clarification of the location of materials or assistance with the use of the computers in the library. Students do not appear to identify with the need for learning process.

8.2.3 Other strategies

There were other ways that the participants dealt with obstacles, aside from utilizing people as resources. The participants mainly made use of an avoidance strategy when encountering an obstacle, or, if avoiding did not work, a strategy to manage the obstacle. One of the obstacles that Tina faced was that she was unable to get results for her searches and could not continue her paper. It was not until a guest speaker for a class gave her insight into her topic and pointed out a book she could use:

"[M]y conference paper was stalled, basically, because I was not able to make these connections that I wanted to and I knew it was out there but I couldn't until I got this resource and now, I was leaps and bounds. I had the book, yeah."

There was no active strategy on the part of Tina in dealing with her obstacle, instead, she had left her research and was simply fortunate to get this direction. It seems that this can only work if a student has a larger time frame to work around.

Christine mentioned that she had been avoiding the use of interlibrary loan services and the use of microfilm:

"I haven't actually ever used, because it's kind of, it's intimidating I guess. I don't know, like, I have to discover how to use the machine, because I have never actually done that, but I would like to do it and I know it's there."

Even though she recognized that there have been times where it would have been useful to use microfilm, she has avoided this source up until now.

As mentioned previously, Brenda changed topics when she was unable to find materials for one of her papers. This meant that she did not have to deal further with the obstacle (no results for her searches) she encountered. Time was also a concern and therefore Brenda felt that avoiding the obstacle would be a more efficient use of her time, considering that she could use class readings for the second topic she chose.

Ryan seemed to avoid using the databases to search for journal articles as much as possible. His first step in starting his search process always involved using Google, a search engine he was familiar and comfortable with. This avoidance strategy broke down for one of his papers when he was unable to retrieve any sources using Google. Nevertheless, Ryan utilized a trial and error strategy for locating information in databases.

“I was just typing in things like Canadian National Project and the name of the author and the name of the poem. And it ended up producing something that um, I was able to work with. But I wasn’t very comfortable because I didn’t know, like I knew there were better sources out there and I knew that, I just didn’t know how to get them.”

Ryan’s trial and error strategy led to sources he was “able to work with,” in other words he was settling for any information that would fit his paper. It is interesting that Ryan made no attempt to further consult the professor or other people, but rather tried things on his own. He may have very well benefitted from intervention that would have explored sources and search tools. Kuhlthau (2004) also discusses strategies used in the information seeking process by a group of high school students. She found that students used discussing their topic as a strategy, often with friends or “informal mediators” (43). Seamans (2002) found in her study of students in an undergraduate English class that “though all of the students reported that they consulted with others when acquiring information, none included library personnel among those they consulted” (116). It appears that students do not see reference librarians playing a role in their information seeking strategies. Furthermore, the idea of students using strategies to avoid or manage obstacles in the information seeking process, rather than seek intervention, needs to be further studied.

8.3 Perceptions of Librarians and Reference Transactions

Considering that there were no participants that made use of a reference librarian through a reference transaction for any of the critical incidents discussed, it is especially interesting to understand their perceptions of librarians and the reference transaction. The following sub-sections will discuss (1) how the participants view librarians, (2) whether they believe they can benefit from reference transactions, and (3) why reference librarians are not used according to the participants’ perspectives.

8.3.1 What is a librarian?

The participants showed much confusion about who a librarian is. Tina indicated that she does not make a distinction between librarians and library assistants:

“And then also, there is this one librarian that checks out the books and she is absolutely wonderful, a ray of sunshine on a cloudy day. And I think that is incredibly important.”

When asked specifically about librarians working in the reference area, Tina responded:

”Um, the references section? Not really, I’m not really certain exactly what they do. Those are the people I did talk to about my computer searching on the Internet and they were helpful.”

Although Tina did receive help from reference librarians at some point, she is still not clear what the purpose of the reference librarian is. When Christine was asked where librarians worked within the library, she said:

“I mean there is like, three or four at the reference part, three or four for like check out, and three or four for like shelving and stuff, but I, I think it’s about even for all the stuff.”

Ryan’s comments showed that he had a very basic sense of what reference librarians do:

“I think they would, they would put me in the direction of reference materials that were relevant to my topic or they would be able to suggest, um, particular encyclopaedias or um, things like history manuals or whatever, they would be able to suggest something specific, or something general in the hopes that it pointed you in the right direction. But I’m not too sure beyond that what they could provide.”

Tina views reference librarians in more generalist terms as well:

“well they can’t know everything but they can sort of know the tip of the iceberg, if they know the tip of the iceberg they can direct the student to look at the iceberg so to speak.”

In short, the participants indicated that they have difficulty identifying a professional librarian within a library setting and do not fully comprehend the function of a reference librarian. Fagan (2002) conducted a study on a group of undergraduate students’ perceptions of academic librarians. The findings suggest that students believe that librarians’ functions are mainly clerical and they have limited awareness of librarians’ educational background and professional capacity. This suggests that librarians will have to promote their professional image and expertise they can provide in order to attract students to the services provided by reference librarians.

8.3.2 Can students benefit from the reference transaction?

It is important to know whether the participants believe that they can benefit from the reference transaction. Tina, in her fourth year of her program, considered the role of a librarian “essential,” but thus far has requested help only a few times:

“Well, from what I see is that like I haven’t done this yet, but I’m going to have to do it. I’ve gone and asked librarians to help me learn how to use the computer.”

Tina sees a role for the librarian within her studies and can see that there is benefit to talking to a librarian:

“Well I think, it might have been helpful to talk to them to sort of like maybe to refine my method of searching the databases, like to find book reviews specifically for example and that kind of thing. [...] I wasn’t entirely sure, like outside of the Historical Abstracts database, which is the one I’m sort of most familiar with, I didn’t really know how to do a search where I knew sort of the subject that I was interested in, but I didn’t have a specific idea of what I wanted. So, I probably could have talked to them about that.”

Brenda was hesitant in admitting that she could benefit from a reference transaction:

“I think theoretically they could, I mean, it’s just that, I’m a little bit closed-minded [...] I guess, for me, they’re more of a secondary resource. Like, if the people that I normally go to can’t suggest anything, then I would definitely go to the reference desk and say I need some help.”

Previous studies also have indicated that librarians tend to be a last resort in the students’ pursuit of information (Hayden, 2003; Kuhlthau, 2004). When reference librarians are approached as a last resort, which usually means that time is limited as well, it becomes more difficult to reach any Z5 level of intervention. The idea of process intervention is one that requires an ongoing relation with the student throughout which the student can build research skills. For a last resort intervention, students will likely only be satisfied with resource location. To reach students at the process level, librarians will have to work closely with professors and market this type of service.

8.3.3 Why are reference librarians not used?

Aside from the aforementioned perception of reference librarians being generalists, without a subject specialty, there were two other factors that played a role in the participants’ non-use of reference librarians. The first factor involves the idea that students must be independent in their research. The second factor deals with the perception that the reference transaction is a waste of time.

8.3.3a Independent vs. collaborative

The participants saw themselves as being very independent in their research, which is not conducive to using reference librarians. Tina mentioned the following about herself:

“I’m sort of the type of person who’s um a very independent worker. And so I try to do things on my own, right? And then there is you know, I don’t want to bug people.”

She also mentioned that she was not sure what a suitable reference question was and what she was supposed to do by herself or what she could ask help with. Although more confident, Brenda expressed the same sentiment about being “a very independent researcher.” Ryan stated his desire to work independently in terms of his attitude:

“I’m aware that you can ask the librarians for help or you can ask a friend or whatever. I guess I like to do things by myself, so I just sat and, I’m kind of stubborn and I didn’t want to ask for help, so I just did it myself.”

As students feel the need to be independent in their research it hinders their willingness to utilize a reference librarian. For instance, the participants do not view the reference librarian as a collaborator in the research process. They are aware that there are benefits to engaging in the reference transaction, but it is not seen as part of their research strategies. Promoting a collaborative approach within the educational system may be required to encourage the use of reference librarians. Future studies are needed to demonstrate how pervasive the attitude of research independence is amongst students.

8.3.3b Waste of time

Several participants made the comment that asking a reference question would be a waste of time, especially when time was a factor. Although the participants had not actually experienced this, it was still their perception. For example, Brenda said:

“Well, if I talk to people who work in the field, I need to find that specific information every couple of days, it just seems to me like a better short cut, then going to a librarian who has a lot of general knowledge, but it takes them a while to narrow it down to exactly what you need. And I rather not go through all the hoops like that.”

It is interesting to note here that Brenda does not make use of reference librarians, but still believes she knows exactly how a reference transaction would proceed. Therefore, she considers the people in her field to be a more appropriate resource than a reference librarian. Ryan has a similar perception, without previous experience to base this on:

“Um, again because I work and because I only have so much time for doing schoolwork, I can’t really afford to waste time, I have lots of, like my time is really scheduled. Sometimes I believe it might be a waste of time so I don’t, I don’t want to risk spending an hour with someone who ultimately could not be helpful.”

It will be important to further study this perception to determine the pervasiveness of it amongst students, and especially non-users of the reference transaction. If further studies agree with this finding, it will be necessary to counter-act these perceptions through collaborating with professors and marketing the reference transaction as part of reference services.

9. CONCLUSION

This study has found that students encounter a variety of obstacles during the information seeking process and to overcome these obstacles they rely mostly on the professor, if time permits, or they make use of a strategy that allows them to avoid the obstacle or manage the obstacle. This study also showed that students might hold negative views of the reference transaction. They may perceive the reference librarian as a generalist and lacking the expertise needed to deal with a specific topic. Students also appear to value working independently. They may also believe that the reference transaction can be a waste of time, which they cannot afford when dealing with many deadlines. Furthermore, when students indicate a purpose for the reference transaction, they usually refer to a need for a resource locator or assistance with a specific library tool. This suggests that Kuhlthau's fifth zone of intervention, which focuses on process, may only be initiated by, for example, a reference librarian who has identified the opportunity with a user. Non-users of the reference transaction will continue to limit themselves to search tools and information sources that they are familiar with, unless perhaps they seek guidance from their professor. The implication for practice is the need for collaborative efforts with professors to ensure that students are aware of the role of the reference librarian and how the reference transaction can benefit them throughout their studies. As this study was a pilot study making use of a small number of participants, additional research is required to verify the findings that students, in a variety of disciplines and during various years of study, hold negative and limited views of the reference transaction.

10. REFERENCES

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