

Book-an-information-specialist-service: supporting researchers' and future researchers' information skills

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Abstract

Aim

In our poster, we investigate book-an-information-specialist-service from three perspectives: an extent of usage, client's reasons to use the service and usefulness of the service perceived by clients.

Methods

The poster is based on the both quantitative and qualitative data as follows: usage statistics, filled booking forms and e-mails between a client and an information specialist, and short feedback type questionnaire among the service users.

Results

Book-an-information-specialist-service has established its' place in the library's services repertoire. The number of bookings has steadily increased and consequently information specialists have to allocate more working hours to this tailored guidance. Specifically, the undergraduate and graduate students were active users of the service. The reasons to consult an information specialist were e.g. concrete problems in constructing the searches but in many cases the students also sought for affective support. The clients were satisfied with the service as consultation supported them to finish their assignments.

Conclusion

Currently, specifically the nursing students have found book-an-information-specialist service. The number of researches using the service was quite small compared to students. Therefore, the real challenge is to market the service for researchers. The role of information specialists has developed from a teacher to a consultant. The pedagogic skills are increasingly important to able to give both group and individual guidance for clients.

Key words: Information Services; Librarians; Research Personnel; Students, Health Occupations

Introduction

Book-an-information-specialist-service is a “beloved child” which is also referred to names such as research consultation (1-4) or personalized research assistance (5). The names have varied depending on the time and environment. The general idea of the service is to provide one-on-one tailored instructional sessions for meet the specific needs of the individual client (3). The service has established its’ place in libraries’ service repertoire. This is the case also in Tampere University Library whose strategic goals for 2010-2015 (<http://www.uta.fi/kirjasto/en/information/strategy.html>) highlight development of personal and tailored services for various user groups of the library.

Book-an-information-specialist-service is one form to support research (6). The service is also considered an essential way to promote information literacy skills (1). Through this service, the libraries have a splendid opportunity to promote their public image (5) and librarians can market their teaching skills and also advance their role in student education (7). Currently, the pedagogic skills have an increasingly important role in the work of information specialists (8, 9).

We explore book-an-information-specialist-service as way to support researchers and future researchers in their tasks. We use usage statistics, clients’ filled booking forms and e-mails and a questionnaire conducted among the service users to get insight in the following issues: an amount of usage, client’s reasons to use the service and usefulness of the service perceived by clients.

The paper is structured as follows. First, we shortly introduce previous literature which relates to research consultations with librarians. Thereafter, we describe the context of book-an-information-specialist-service and data collection and analysis methods used. We structure the results section in three themes which illustrate an overall usage of the service, clients’ reasons for consultations and clients’ assessment of the service. Finally, we summarize and discuss the results and present implications for research and practice to further develop the book-an-information-specialist-service.

Background – previous research

The labor intensive nature of services similar to book-an-information-specialist-service has been recognized in several previous studies (1, 3). Lee found that the research consultations remained active all over the year, even in the summer months the students required consultation (3). This demand over the summer months was accounted for reflecting students’ literature review process getting started in the summer (3). Attebury et al. analysed usage data collected over a decade and demonstrated that fall semester was normally the busiest one and that the extent of service use by the students reflected the nature and number of assignments given by teaching faculty (5). The previous studies have pointed out that the working hours used for the service extend beyond a face-to-face encounter with a client because the preparation time is a necessity in most of the cases. According to earlier research, preparation takes at least 30 minute or more depending upon the complexity of a topic (7) but in many cases this half an hour may be exceeded (5). According to earlier studies, the largest group of users seem to be graduate (3) or undergraduate students (5, 7). The findings from the earlier research indicate that the faculty members are in the minority in the service use (3, 7).

In the literature, it has been discussed about the most effective ways to promote consultation services. The successful ways to promote the service have been e.g. librarians' referrals (3) or marketing efforts thorough library instruction sessions or through faculty members (7). The flyers, instead, as a referral methods were not effective (3). The word of mouth among students also increases awareness about the service (6) and indeed works like a network marketing. Harrington suggests several marketing strategies such as e-mails to clients or reaching out the students through their advisors (10).

Research consultation has been considered a method of teaching information literacy skills (1). It supplements information programs and provides a continuum in a learning process. In many cases, classroom instruction triggers awareness of information needs and increases the eagerness to learn advanced information searching skills (11). The consultation facilitates tailored instruction matching to the skills of a client (12) and more detailed discussion about the topics that might have been inadequately covered in a classroom instruction (11). Therefore, it reinforces recently learned information skills in group sessions (7).

The students' motivation to use the service is associated to their immediate needs to finish their assignment (11). This is the case especially in the situations when they face roadblocks and challenges in finding information on their own (2). The analysis of book-librarian-service revealed various reasons for these roadblocks such as finding too little or too much information, issues related to relevancy and problems in search techniques and key words (13). Lundgren found out that students booked a time for a librarian in all stages of the information search process (13).

Previous studies have reported that clients were satisfied with the help they got in the face-to-face session with an information specialist (2, 7). The clients named that the librarians gave help on choosing and searching the databases, giving instructions on search techniques and identifying search terms (2). Affective benefits such as increased confidence and reduced stress were also highly valued (2).

Research environment and methods

Aim

The purpose of our poster is to explore book-an-information specialist-service from three perspectives: an amount of usage, client's reasons to use the service and usefulness of the service perceived by clients.

The context of book-an-information-specialist-service

The profile of the University of Tampere emphasizes specifically multifaceted research and education on society and health. University of Tampere enrolls over 15500 degree students in nine schools. The schools are located in two campus areas: the main campus and Kauppi campus. Schools of Health Sciences, Medicine and BioMediTech are located in the later campus area. The student population in these three schools is about 2700.

The Branch Library of Health Sciences at university of Tampere (<http://www.uta.fi/kirjasto/en/tertio/index.html>) organizes services at Kauppi campus for biotechnology, medical, nursing and public health students, faculty members and university

hospital staff. The branch library serves this population with a staff of ten library professionals including four information specialists. Three information specialists focus on providing services for the university staff and students and one information specialist works closely with hospital staff. The information literacy education is integrated into the students' curricula and thus the teaching has become an essential task for the information specialists.

Book-an-information-specialist-service was initiated in 2009. In this service, the information specialists offer personalized and tailored guidance to researchers, PhD-students, Masters- and Bachelor students, and hospital staff on information retrieval and the use of electronic resources. Students can use of the service only if they have attended information literacy group sessions which are integrated into their curricula. The first one hour of the service is free of charge. This service requires booking in advance so that an information specialist can familiarize with the client's topic beforehand. Commonly, clients book the service filling an online form (<https://elomake3.uta.fi/lomakkeet/4274/lomake.html>) on the library's web site. Clients may also contact and request time by e-mail and occasionally appointments are set orally. The further e-mail communication between an information specialist and a client is often carried out to set up time and to clarify the client's topic and needs for instruction.

The purpose of the book-an-information-specialist-service is not to spoon feed clients but to hearten them to independently seek for information (6). Therefore, clients are requested to attempt searches in databases on their own and provide the search strategies for an information specialist prior to a meeting. The sessions are conducted at an office of an information specialist. The dual screen and keyboard on the computer facilitate hands-on training for a client during a session.

Data collection

The poster is based on different kinds of data: usage statistics, filled booking forms, e-mails between a client and an information specialist, and a questionnaire which collected feedback and views about the service among the clients. The data offer us both quantitative and qualitative perspectives on our research topic.

The information specialists collect the usage statistics in an excel file as part of their work. The statistics have the following information: a date of a consultation, client's name, her/his academic discipline and status, whether databases (and which one) or a reference management system was a topic and how much time was spent with a client. We use statistics from the years 2009-2013 to show an overall usage trend of service and analyze more in depth the statistics from the year 2013.

The book-an-information-specialist form and consequent e-mails between an information specialist and a client are rich qualitative and naturally occurring data (14). The form includes client's background information such as name and e-mail address. The client's status is distinguished in five categories in the drop-down menu as follows: university student, post graduate student, researcher, university staff and hospital staff. The purpose of the work is categorized as an essay, a bachelor thesis, a master thesis, a doctoral thesis or other purpose. The open field asks a client to describe her/his topic and suggest a meeting time. The e-mails normally clarify the client's topic, problem description and in addition client's search strategies are passed to an information specialist through e-mail. The total amount of available filled booking forms and e-mails from the year 2013 is 66. This number includes bookings and communications from 18 Bachelor-, 27 Masters- and 17 PhD-students and four others. This

naturally occurring data set does not include all bookings (n=173) because the bookings forms or e-mails were not systematically archived. Some of the appointments times were set up orally. The short feedback type questionnaire had two questions about usefulness of the service. The clients were asked to assess the usefulness of the service in a five-point Likert-type scale ranging from poor to excellent. Two open-ended questions encourage the respondents to describe what they got out of the service and to give suggestions for further development of the service. The link to an electronic questionnaire was distributed by e-mail in December 2013 to clients who had used the service over the past year and whose e-mail was possible to trace. The clients were informed that the data would be used to get feedback and prepare a conference paper. The questionnaire resulted in 42 responses. The majority of the respondents were PhD-students (33 %) followed by Bachelor students (29 %), Research (19 %), Master's students (12 %) and others (7 %). The relatively high number of PhD-students' answers might be explained, for example, by the fact as doing research and writing conference papers themselves, they feel sympathy others with similar kind of aspiration.

Data analysis

We calculated the usage statistics from the excel spread sheets. In the result section, we present descriptive figures aka absolute numbers and percentages about the usage report. We realized the analysis of booking forms and e-mails step by step. At first, the data was printed on the paper and thereafter the clients' expressions about their needs and problems were underlined and collected into a separate document. Thereafter, we worked independently to identify the themes and categorize them. At the final stage, we jointly reviewed and discussed our categorizations. We analyzed the questionnaire's open-ended questions with a similar manner.

Results

Making the work visible via usage statistics: number of bookings, when and who

In 2013, there were 173 bookings for the book-an-information-specialist-service. Since the implementation year of 2009 the number of bookings has increased and it seems that specifically during the last two years the service has established its position. As a consequence the working hours invested in the service has increased over the years. According to usage statistics from the year 2013 the information specialists used 158 hours in proving consultation. However, the statistics give only limited account about used working hours. The statistics tell only about the actual time spent with a client but it does not take into account the time needed for preparation. The preparation means e.g. communication with a client to clarify issues and test the client's topic in the databases. This preparation may take normally from half an hour to an hour per booking. (Table1.)

Table 1. Number of bookings and invested working hours in 2009-2013

	2009	2010	2011	2012	2013
bookings	103	101	109	171	173
hours invested	72	98	113	126	158

In 2013, the usage of the book-an-information specialist-service was rather steady over the whole year (Table 2). The majority of the bookings was made in the spring semester. The most hectic months were specifically April and May and the clients were still active in June. There was a slight decline in the summer months. The peak of the usage in the spring and the early summer is associated to bachelor nursing students' seminar which started at the end of April. The group database sessions were integrated into their seminar. The book-an-information-specialist-service was marketed in the group sessions and this obviously encouraged the student to book individual consultation time with an information specialist. After the summer months the number of clients increased only a little bit. It is somewhat surprising that the usage in the autumn semester was lesser than in the spring.

Table 2. Bookings to the information-specialist-service according to seasons

Spring semester	Summer	Autumn semester
99 (57 %)	33 (19 %)	41 (24 %)

There is remarkable variation in what extent how the students and faculty members of disciplines and university hospital staff have adopted the service (Table 3). The largest group of users was nursing students. They requested about 40 % of sessions conducted. The hospital staff was the second largest user group. Their consultation requests constituted about the third of the all bookings. The fifth of the clients came from medical discipline and only a few from public health. There were no contacts from biotechnology.

Table 3. The clients according to the disciplines and university hospital staff in 2013

Biotechnology	Medicine	Nursing	Public health	Hospital staff	Other	Total
0 (0 %)	33 (19%)	71 (41 %)	9 (5 %)	57 (33 %)	3 (2 %)	173

The extent how the service is used by various groups of students, researchers and others is presented in Table 4. The bachelor, master and PhD-students have almost an equal share in the service usage. Each of them shares about fifth of the usage. The other users came from the research, education and hospital clinics. The researchers used the service modestly.

Table 4. The clients according to their academic status in 2013

Bachelor	Master	PhD	Research	Other	Total
32 (18 %)	31 (18 %)	33 (19 %)	18 (10 %)	59 (34 %)	173

Clients' reasons to use book-an-information-specialist-service

The clients turned to an information specialist to get help in database searching and reference management. In the most of the booked sessions (84 %) focus was on instructions related to

databases and in slightly every tenth (13 %) session the topic was reference management. In a few sessions, both topics were covered.

The content of the database instruction sessions varied. About fourth of the sessions (26 %) concentrated on the features of one database but in the most of the sessions (74 %) it was necessary to practice searches in several databases. Most commonly, the clients were instructed to use Medline and Cinahl databases. In addition, Psycinfo, Eric and Sociological Abstracts were useful for some clients. The complexity of the clients' topics is an obvious reason to conduct searches in several databases. Currently, the library offers a rich information environment. The issues covered in Refworks sessions included such as operating with write-n-cite, formatting the reference list and generally refreshing the memory about a reference management program. The analysis of clients' booking forms and e-mail messages offer richer and more accurate account about the reasons why they contact an information specialist. The clients seemed to look for a good and systematic information search in databases but at the same they were also aware about their limited skills to carry out searches properly. They defined that goals in a good quality search were systematic, accurate, reliable, extensive and sensible. The following data extracts from a Masters and PhD-student hit the nail on the head about the core of the problem:

“Searching [in the databases] is quite a floundering if you are doing it alone. I just don't know how to do searchers properly. Getting started and finding appropriate sources from my research plan this guidance is absolutely important to me.” (Master's student)

“My literature searching is not very systematic but I do it here and there: PubMed, Google and Web of Science.” (PhD-student)

The clients seemed to have concrete problems in constructing their searches. The clients faced problems with combining search terms with Boolean operators. However, the most commonly named problem was to find proper search terms. The patrons expressed that it was necessary to develop, to construct, to check up or to think deeper about their own search terms. They might have found some useful references but not necessarily enough. That is the why they turned to an information specialist. The finding of proper search terms may be a matter of conceptualizing their topic in general but also finding the matching terms in databases. The clients encountered difficulties in their database searches, for example, when there were too many hits or search results were irrelevant. Specifically, the insufficient amount of hits was a matter of consultation. Therefore, the clients needed also support in limiting and extending their searches. The following quotations from clients' communication illustrate that clients had made several attempts on searches on their own. The problems with search terms, relevancy and discussion on an appropriate number of citations often intertwined.

“I have done a lot of [database] searches and I have many references but I still need more information about my topic but for some reason my search terms do not give the information I need.” (Master's student)

“I need help for doing searches. By so far I have managed to find only five research articles about my topic. Is it really true that there are so few of them or have I failed to find them?” (Bachelor student)

However, the issues related to search strategies were not the only ones that generated consultation needs. The clients also sought emotional support at the moment of an uncertainty. The clients needed confirmation that they had found the thread of the conceptualization of their topic and its realization in databases. The following data extracts are prime examples of how the clients express their uncertainty:

"I have made many searches and I would like to know if I am on the right track? I have got results but I don't know if there are more options." (Bachelor student)

"Attached my latest Medline search strategy. Does it make any sense?" (Master's student)

"The gaudiness of my search terms complicates my search. I have a nice pile of references but it's nagging me that I don't know how to do a systematic search". (PhD-student).

Perceived benefits and ideas for the development

In the questionnaire, the clients assessed the usefulness of the Information specialist service in a five-point Likert-type scale ranging from poor to excellent. The respondents (n=42) seemed to be satisfied with the service. Over the half of the respondents (55 %) considered that usefulness of the service was excellent and the rest of the respondents (45 %) graded service as good. The average grade was 4,5.

The arrangements how service was organized in practice were some of the reasons to clients' satisfaction. According to questionnaire's open-ended responses, the clients appreciated that the book-an-information-specialist-service was provided locally at their own campus. The clients also valued the easy and quick access to consultation with an information specialist. The clients were happy to notice that an information specialist had invested time and effort for preparation:

"It was nice to notice that the information specialist had tested the searches before we met." (Bachelor student)

The most of the comments about usefulness of the service related to concrete help in realization the searches. The patrons expressed that they got new ideas and tricks to be able to continue their tasks in various databases. It was equally important for the patrons that atmosphere in the session was supportive and friendly and consequently they gained in confidence in their work. The next citation depicts this dual support in consultation:

"I wouldn't have been able to continue without the information specialist's help. She gave me concrete help and mental support and saved me to finalize my work." (Bachelor student)

The group sessions included in curricula were a kick-off for the development of information skills. However, the clients, specifically students, preferred individual consultation to be able to deepen their skills. It was a matter of constructing a learning process:

"You can't assimilate everything in the group sessions [of the library] but the learning still continues." (Bachelor student)

The clients were most likely seeking professional opinion about their search strategies. They expressed this both between the lines and directly:

“The information specialist was professionally competent and I got some new tools to be used in the future.” (Bachelor student)

The clients seem to be satisfied with the Information specialist service as such. Maybe this is the why there were only a few suggestions to further develop the service. These suggestions were as follows: lengthier sessions, more opportunities on hands on training and telephone service.

Discussion

The demand for book-an-information-specialist-service has increased and the service has established its place in our library over the past five years. Complex information environment, information overload and awareness of the service may be some of the reasons why clients seek a helping hand of an information specialist. The service is used all over the year but there are some peak periods. In the year 2013, these peak periods were related to nursing students starting to write their bachelor and master’s seminar papers. This kind of steady demand for the service (3) but also peaks depending of seminar assignments (5) have been observed in previous studies as well. Due to the increased demand of the service, the information specialists have to schedule and allocate time resources and organize their work carefully. The high demand and peak periods may result in the prioritization of clients (1) and balancing with staffing and students’ needs (12). The analysis revealed that the nursing students used the service the most actively. The minor number of the users was public health students. Students of biotechnology did not use the service at all. There are several reasons why the extent of service use varies according to the students’ discipline. The simplest reason is that there are far less public health or biotechnology students than nursing students. The assignments of the students may vary, for example, the nursing students are pushed towards writing essays and other papers based on the literature. The discipline of biotechnology does not necessarily need the databases provided by the library in such extent. The biotechnologists have their own domain specific resources and also interpersonal communication is a way to gain information specifically about issues related to laboratory work (15).

The previous studies have demonstrated that faculty members use book-an-Information-specialist like services relatively little (3, 7). This was the case in our library too as only every tenth of the users belonged to the research staff. Generally, the researchers have lack of time and their working hours are fragmented (16) which may explain the underuse of the service. It may be also so that the researchers seek help from their fellows or they have not yet found our information-specialist-service. However, we have managed to attract a great number of undergraduate and master’s students. It is important that we support them in their research process. Their thesis work is a significant landmark when they take first steps in their academic career (10). It does make a difference that we respond to students’ needs and encourage to them in their academic path. These undergraduate and master’s students are potential future researchers.

The clients wanted to consult an information specialist about how to build a search strategy and find appropriate search terms. These kinds of problems may arise because of several reasons. The students are not so familiar with the English language which is the language used in international databases. It is also a challenging task to translate and formulate the concepts of their own topic into English. It may be a surprise to them, that searching in the databases and finding the right search terms take a lot of time and effort. They may not realize that test searches are a part of a search process and therefore they expect to get results at once. If they are unfamiliar with their topic, they consequently have difficulties in building up search strategies. Our findings about the reasons to use information-specialist-service are in accordance with the study conducted in Malmö university library (13).

The consultation also provides affective support (2) and reinforces students in their newly learned information skills (7). The need for such an emotional support was strongly visible in our data as well. According to our findings, it is possible to roughly distinguish two major student groups: those who seek confirmation to already well-done searches and seek “finishing touch” of an expert and those who have remarkable technical problems in constructing searches and who also need affective support. Our findings are in line with Lundgren who categorized students into driven and helpless ones (13). Kuhlthau’s model matches our observation that confusion is part of the process and actions and feelings are intertwined in the process (17).

Our clients expressed their satisfaction with the service by giving high scores in a Likert scale and by naming concrete benefits of the service. This kind of personal consultation has been found highly useful elsewhere (2, 7). Students comment about the usefulness of the service can be seen as an indication of effectiveness (1). The direct impact of consultation on students’ papers may be difficult to assess. The assessment could be done, for example, in cooperation with faculty members who are able to see students’ research and writing process more closely (4).

The consultation requires diverse professional competence from an information specialist. Firstly, an information specialist is an expert who knows the technical features of databases and also how to build search strategies. This kind of expertise was also indirectly acknowledged by the clients who mentioned especially finding the correct search terms getting practical hints in databases. Secondly, an information specialist has to conceptualize and structure students’ topic which in many cases are unfamiliar to an information specialist. Thirdly, the communication skills are essential in face to face consultations. Fourthly, the pedagogic skills play a crucial role in successful consultation sessions with clients. In our university, it is possible to complete university pedagogy courses and most of our information specialists have participated in these courses. Currently, the role of information specialist is increasingly twisting toward consultation and teaching (8, 9). We can, indeed, say that information specialists are personal trainers of some kind.

Implication for research and practice

Our paper threw light on which extent and why clients used book-an-information-specialist-service. However, we still need to understand why especially the researchers seemed to dismiss possibility to consultation. It would be also interesting to ask the faculty teachers’ point of view how information specialists’ consultation shows in students’ papers.

Promoting of the service especially for the researchers is a key issue in the near future. By so far, we have attempted to market library services, including book-an-information-specialist-service, to the researchers in several ways: listing the services on the library web page

(<http://www.uta.fi/kirjasto/en/services/researchers.html>), participating in Science Day on our own campus and sending a letter about the services to new researchers at our campus. There is a great deal of challenge to rise up awareness about a professional support of an information specialist among the researchers. Our information environment is constantly changing. This posits us a challenge to follow future trends and modify and develop our service accordingly.

Conclusion

The findings enhanced our understanding of how much and why researchers' and future researchers' use book-an-information-specialist-service. It is important to acknowledge that clients need both concrete assistance related to their information seeking problems but also affective support has a crucial role. The role of information specialists has developed from a teacher to a consultant. Currently, an information specialist is "a personal trainer" in a complex jungle of information.

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