

How can the library improve students' information retrieval skills?

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Abstract

Good skills in information retrieval play an important role in studies. This article describes how the library can strengthen students' information retrieval skills by providing different kind of services. This article focuses in particular on students studying at the LAB University of Applied Sciences' Master's degree programmes in social and health care. The development of services was based on a study of library services by means of service design.

Key words: information retrieval; students in Master's degree in social and health care; library services; service design.

Introduction

LUT Academic Library is the joint library for LUT University and LAB University of Applied Sciences and provides library services also for the general public in Lappeenranta and in Lahti (1) (Figure 1).

The library has made several guides (LibGuides) to support the students and staff information retrieval. The LibGuides explain, among other things, the main sources of information in different fields, guide the use of different databases through written and video instructions, the evaluation of information and how to cite sources. The latest guide is the Information retrieval toolkit (2) describing the information retrieval process step by step. All the LibGuides are available online.

The Library offers also personal information retrieval guidance or group information retrieval guidance sessions (for students or staff in LUT or LAB). Service is free of charge (3).

The LAB University of Applied Sciences has eleven Finnish-language educational programmes for the Master's degree in the field of social welfare and health. Some (of the) training programmes will be fully implemented online. The LAB University of Applied Sciences therefore has three campuses: Lahti, Lappeenranta and E-Campus (4).

The cooperation between the teaching professor and the library

A Professor working at LAB University of Applied Sciences' Master's degree programmes in social and health care had drawn attention to the fact that some of the students applying for a master's degree have poor skills in information retrieval. They don't know how to use the services provided by the library to support the search for information, such as group or personal guid-



Fig. 1. LUT Academic Library at the Lahti campus.
(Photo: Heli Vilja-Sarromaa).

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ance or library guides and videos, but use Google. This can be seen at its worst, for example, in the use of low-level references in the thesis.

The initiator of the cooperation was a study of the professor's and her student colleagues of the Service Design Management studies (5 ECTS, University of Lapland): "How could we develop the guidance of the LUT Academic Library's knowledge information retrieval skills in order to provide students with services that meet their own needs? [6]."

The Professor presented the study at the current events meeting of the library. She stressed that this was not about the weakness of the existing services in the library, but more about how to make better use of them for students. Of course, there is always a need for new services. From the very beginning, the perspective was to cooperate actively with the library. The library has strong knowledge of information retrieval, and the library staff were found to be approachable.

How students in Master's degree programmes in social and health care at the LAB University of Applied Sciences experience the information retrieval?

In the study presented to the library, three different information seekers had been created through service design: Susan Superhero, Susan Struggler and Susan Survivor. The following questions were examined through them: What are the wishes of the information seeker for the library services? How do library services solve the challenges of the information seeker? What would prevent the information seeker from using the library services? What are the potential fears and unwanted experiences of the information seeker?

Susan Superhero is a student person who is determined and effective and quick to learn. She has excellent skills in information retrieval and good English skills. She hopes that the library services will provide up-to-date, extensive and international information.

Library services solve the challenges of Susan Superhero with easy-to-use library web pages and easy availability of the necessary information from the information search service LAB Primo (Figure 2) and its individual databases (5).

Susan Superhero could not use the services if her user rights were interrupted, or network connections were not working.

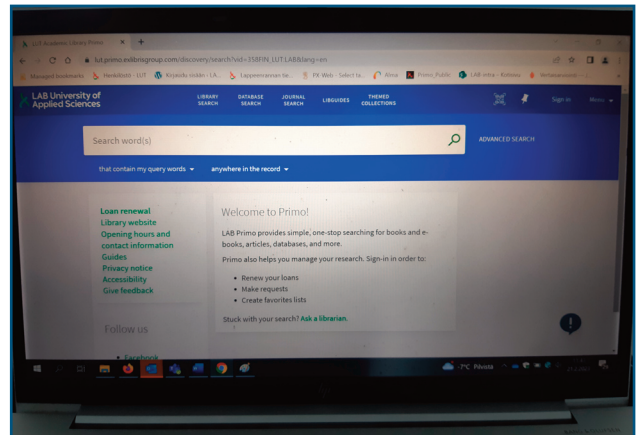


Fig. 2. LAB Primo - LUT Academic Library's search service. (Photo: Heli Vilja-Sarromaa).

Possible fears or unwanted experiences in the use of library services, such as LAB Primo, would appear in situations such as the disappearance of the search she has done, which means that she wouldn't remember to save her search history in LAB Primo. There could also be problems if the databases which she most frequently uses would change names and she did not recognize their new names.

Susan Struggler is a student person who is eager to learn and is interested in self-development. She's also good at learning. However, after a long study break, there is a need for updating the information seeking skills. Reading English is a challenge for her.

Susan Struggler wishes the library to provide effective and personal guidance on information retrieval, in particular how to find and choose the right search words and how to use different databases. She also wishes to have a so-called step by step guide that would guide in the search for information step by step.

Library services solve her information search challenges with personal guidance, which is timely and easily accessible.

Challenges in finding information would prevent her from using library services. These challenges include finding the right search words and identifying good and high-quality sources. Insufficient English skills also cause difficulties both in seeking information itself and in getting to know the sources found. Susan Struggler wouldn't like to spend much time studying information retrieval but would like rapid solutions.

For her, fear and unwanted experiences are caused by too many search results. She has difficulty narrowing

the search and finding suitable relevant sources.

The third student person created in the survey was Susan Survivor. She has a lot of challenges like Susan Struggler. However, the basic skills of the search for information are slightly better and she mainly needs to go through the main issues about information retrieval, as well as a strengthening of self-esteem and increasing confidence in her own knowledge.

She therefore wishes the library to take into account the baseline and previous competence on an individual basis, as well as to provide accurate guidance for the search for information, e.g., how to find high-quality sources for a study assignment.

The library solves her information search challenges by providing clear and accessible library websites and the easy-to-use LAB Primo information search service. She also hopes that guidance on information retrieval will be readily and quickly available when needed.

Susan Survivor could not use library services if the goals and expectations were unclear, there is too little time, it seems difficult to limit and exploit searches and the library doesn't provide sufficient support. Fears or unwanted experiences would be the abundance of databases and, in general, too much information. She also fears uncertainty about her own knowledge of the information retrieval (6).

In summary, the study concluded that the problems of the information seekers are fear and uncertainty about their own competence and, on the other hand, shame on their lack of competence. Complicated paths in the search for information don't inspire searches. The limitation of searches and the use of the information found could be difficult.

For some, poor knowledge of English causes problems. Good English skills are very important, because there are many more international researches than Finnish studies. On the other hand, many researches are also published in English in Finland.

Reading the scientific text and interpreting the information at all can be difficult. The lack of individual guidance in information retrieval provided by the library was also seen as a problem. In individual or small group guidance, some people feel that the guidance is moving too fast. On the other hand, students' time schedules may be so tight that they don't have enough time to get to know the information retrieval properly. Coordination between work and study can be challenging (6).

The study found solutions

As one of the solutions to the challenges of student information retrieval, the study proposed a quick guide for students, the so-called step-by-step guide to information search. It would present information retrieval step-by-step. The first step is to define the subject. After that comes the selection of appropriate search words. The sources found should also be evaluated. Finally, it must be verified that the source references are correctly cited in the work, e.g., in the thesis.

The second solution was to step up cooperation between tutor teachers and library staff. This would require, for example, to create regular working groups.

The third solution was the baseline test on information retrieval skills in the beginning of the studies. It would give the student immediate feedback on his or her own information retrieval skills. The test was also seen to encourage students to develop their information retrieval skills. It was also considered that the baseline test would benefit the organisation by providing information on the student's competence.

What the library has done?

The library chose to do the quick guide to the information retrieval, the so-called "step-by-step" guide. It was the first solution suggested in the study. Its name became the Information retrieval toolkit (2).

It was introduced in studies at the LAB University of Applied Sciences' Master's degree programmes in social and health care in the spring 2023. It is part of the library's LibGuides and is available online for all. It thus serves all the information seekers (Figure 3).

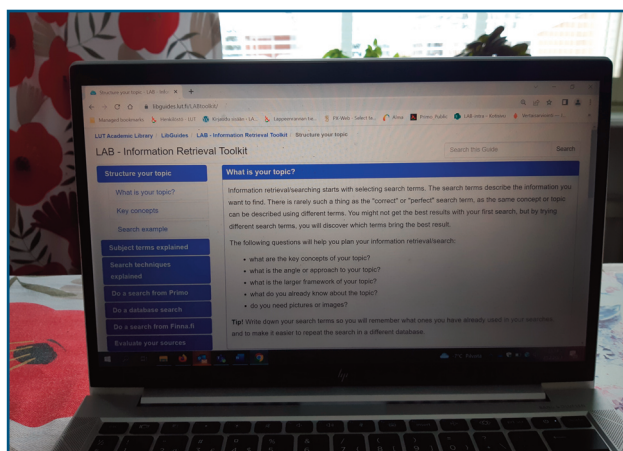


Fig. 3. The frontpage of Information retrieval toolkit. (Photo: Heli Vilja-Sarromaa).

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A similar guide was also made available to students and staff at LUT University. The Information retrieval toolkit has been published in both Finnish and English. The guide has its own tab for giving feedback. The feedback is provided using a Webropol form. It asks about the ease of use of the information retrieval toolkit, how to learn new things using it, and whether the giver of feedback will continue to use it in his or her studies. There is also an opportunity to give free feedback, to tell library staff what is good in the Information retrieval toolkit and how to improve it further. It won't take long to give feedback (about one minute). This way it's easy and fast.

The library has also carried out a baseline test for information retrieval, which was proposed as a second solution in the study. The baseline test is conducted in the Moodle learning environment and contains 10 multiple choice questions related to information retrieval. For example, the baseline test asks the following question: "Get to know the Information retrieval toolkit and tell us how the use of quotes (") around search words changes your search result?"

or "Your task is to search for information on the mental health of young people. However, the search results are not very good. What would help?"

A student conducting the test, chooses one or more correct answers from the answer options. The test has been approved if at least six questions have been answered correctly.

Discussion

In addition to independent studies, the Information retrieval toolkit is also suitable for teaching information retrieval for student groups. It makes it easy to show information retrieval step by step.

Library's information specialists have already used Information retrieval toolkit as teaching material for a number of student groups of master's programmes in social welfare and health care at LAB University of Applied Sciences. Instant feedback from the has been encouraging. Some of the teachings has been implemented as online teaching in Zoom and some face to face.

The teaching of information retrieval through Zoom was aimed at students who make their studies online. The use of the Information retrieval toolkit as teaching

material also worked very well in online education. It is a particularly important tool for those who study online, because it is always available. When it is used as teaching material, it may be remembered by students, and it will become a natural help for their independent information retrieval in the future.

We hope to receive user feedback from both the Information retrieval toolkit and the baseline test of information retrieval. In addition to the students, we also want feedback from the professors and teachers. Have they experienced that the Information retrieval toolkit and the baseline test have affected the students' information retrieval skills. On the basis of the feedback, it is intended to develop both of them in a better way to meet needs.

The Information retrieval toolkit and the background study and cooperation were presented at the BMF's (Bibliothecarii Medicinae Fenniae) autumn seminar in 2022 (7). The subject raised a lot of debate and other higher education institutions also saw the need to strengthen students' information retrieval skills.

In addition to the materials made by the library (the Information retrieval toolkit and the baseline test in information retrieval), students also need more personal or small group guidance in information retrieval. According to the study some students felt that it wasn't available enough. The library offers personal guidance from Monday to Friday between 8 am and 3.30 pm. Quite many students who study in the Master's programmes at the LAB University of Applied Sciences work during the day and therefore, they won't be able to take part in guidance during office hours. To solve this problem now the library offers a group guidance about once a month even in the evening.

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