

INTEGRATING INFORMATION LITERACY INTO THE CURRICULUM

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ABSTRACT:

Information literacy is regarded as a crucial skill for university students (Landøy, 2010). In this paper, we will discuss collaborative efforts between academic libraries and the scholarly community they are serving, in order to enhance the take-up of information literacy (IL) from students.

At University of Bergen, the Library has taken ownership to IL and regards the training of students in IL as one of the main strategic tasks (Landøy, 2010). The trainings in IL are not compulsory for students, although IL is mentioned as one of the core skills in the “qualification framework” given by the Royal Norwegian Ministry of Education (NKR, 2011:22). The University leadership supports the Library efforts.

When it comes to the practical implementation, however, the scholarly departments are most important for students to participate in the trainings.

Our joint efforts, which will be discussed in the paper, include informational and motivational measures from administrative and academic staff at the departments, and close collaborations in planning of content. The departments have some similar and some different needs for their students, and the academic librarian will be able to choose from a set of descriptions with matching training content.

1. INTRODUCTION: INFORMATION LITERACY AND ACADEMIC RESEARCH

Information literacy, as a tool for students to assess and understand the reliability of the information they are gathering, is an important task, especially for academic libraries worldwide. In this framework, information literacy can be defined as in the new definition from the Chartered institute of library information professionals (CILIP). "Information literacy is the ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society" (CILIP 2018). In an educational and academic setting, university libraries have an impact on how successful students are in acquiring skills that are necessary for their academic endeavours.

Information literacy is one of the most useful tools developed in the academic sector to get students to become better acquainted with the vast academic resources found in the academic libraries, to bring these resources into use at all academic and scientific levels in their own studies and work, to develop the technical skills needed to master and make practical and efficient use of resources, to seek strategically relevant knowledge in the vast amount of knowledge that academic libraries manage and which is a necessary input to, and to be able to develop both a subject-critical assessment of this knowledge material and, moreover, be able to better see his/her own narrow discipline in a larger academic perspective and, moreover, in a broader scientific theory context. Such challenges are difficult or impossible for students to both cope with and resolve on their own, and too demanding to achieve the necessary skills and competencies needed without expert guidance on the use of information literacy tools.

Earlier research from University of Bergen Library shows that even when academic staff promotes the information literacy trainings, not all students participate in the training (Landøy, 2010). The University library, in close collaboration with the professors, situate the training at the optimum time in the academic cycle; “just in time” for the deadlines the students have for their work, but even so, the number of students attending is lower than expected for some subject.

In this paper, we will look at some joint efforts with the objective to enhance the student participation in the Library information literacy courses.

2. INFORMATION LITERACY AS A CORE COMPETENCE FOR NORWEGIAN STUDENTS: THE NATIONAL QUALIFICATION FRAMEWORK

The Royal Norwegian Ministry of Education and Research finalized the Norwegian Qualifications Framework in 2009 and made it law in 2011, as part of the European Qualification Framework and the Bologna process in Norway. The Qualifications Framework formulates the knowledge, skills and general competencies all students are expected to achieve through completed study courses at different levels. Education policy increasingly emphasizes that higher education must qualify students beyond the subject-specific. Being a practitioner of a given profession or possessing a given professional knowledge therefore assume qualifications that are explicitly linked to students' future participation as citizens, as workers, and as participants in lifelong learning processes.

Libraries in higher education are constantly developing their educational offerings. This can be seen as an important step in strengthening our role as professional and educational resource environments for the mother institutions. Within the framework, qualifications we can understand within the term "information competence" are formulated as expected learning outcomes for the study programs. This also shows how the implementation of the qualification framework challenges the library's educational and professional competence.

The Norwegian Qualification Framework is developed for all levels of formal education. In the following, we will concentrate on levels Bachelor, Master and PhD.

The European Quality Framework defines national qualification frameworks as: "National qualifications framework means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society." The Ministry formulated their understanding as: "A qualification framework is a collective, systematic and level-divided description of formal qualifications that can be achieved within an education system. The framework is a systematic description of the level and competence acquired for the levels in the Norwegian education system. National qualifications frameworks are based on the nation's education system, shows level and progression and correlation with working life and social life." (NKF, 2011:7)

Information literacy may be found embedded in the framework under the headings of "SKILLS" (defined as "The ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills)") and "GENERAL COMPETENCE", which is defined as: "The ability to utilise knowledge and skills in an independent manner in different situations". For Bachelor level (first cycle of higher education), the framework mentions skills like "can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem" and "masters relevant scholarly tools, techniques and forms of communication". In Master level (second cycle) the skills includes "can analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments" (NKF, 2011:23f)

3. THE ACADEMIC LIBRARIES AND ACADEMIC RESEARCH

In order to get the most optimal benefit for students at all academic levels of the resources available in the academic libraries, close cooperation between the academic libraries and the academic units at the faculty and department level is highly necessary. Here, academic libraries have no doubt sat down in the driver's seat. Many of the academic libraries have on the one hand invested heavily in the task of developing good, useful and solid information literacy tools of a technical, archival and material nature. On the other hand, the academic libraries have invested heavily in qualifying the librarians for the new tasks and requirements associated with an academic library through continuing education and retraining. For the librarians, this has partly

meant a change in the work situation from pure service activities, such as delivering ordered book and literature material to users and the public, to assist professionals and researchers at all academic levels with advisory services.

The librarians have changed their librarian status and position librarians from largely being service librarians to largely becoming academic librarians. In addition many of the academic libraries today have put in place solid and decent technical and practical resources aimed at academic and research activities, and they also have a solid staff of resourceful librarians who can engage in expert information literacy guidance. Many of the academic libraries have developed into a living research environment or research recruitment arena where students and researchers stay for shorter or longer periods. Previously, the practice of students and scholars was just to retrieve ordered material. That is, university libraries were previously not intended for students.

The role of university libraries as a reading room for students - mainly at the lower level - is old, but after the university libraries became academic libraries, the students' library behaviour and the role of the library have changed noticeably. The academic libraries have been transformed into study libraries in a completely new and different manner. The students can stay here for much of the day because the libraries have become more study and research friendly, because one can ask the librarians for academic advice and academic guidance, and because most research libraries now have open bookshelves where the students can go, both to orient themselves and to find just the books and literature they need for their professional work and exams. In the middle of tightly packed bookshelves that strain from professional knowledge, there will be group rooms and reading, study and conversation hooks, where academic discussions and academic presentations take place. An academic library today is not what a university library was.

4. FOUR ESSENTIAL ACADEMIC CONTRIBUTORS

The four key players in the development, adaptation and adaptation of information literacy in academia are 1) the academic libraries, 2) the academic institutions, 3) scholarly staff (teachers and professors) and 4) the students.

By academic libraries is meant here: the academic libraries, the non-fiction collections, the technical and digital access to the academic literature, the physical facilitation in and by the libraries, the physical access to the collections, and the physical and practical facilities for being able to reside in the academic libraries over a longer period of time.

Academic institutions here mean universities and university colleges at various organizational levels: at the upper academic and administrative university level (rectorate and director level), at the academic and administrative faculty level, at the academic and administrative level, and at the academic and administrative level, center level.

Scholarly staff here is meant to be scientific and educational staff who are involved in various aspects of teaching and research related to student work and on BA level, MA level and Ph.D level.

With students here are meant academically active students who work with and complete scholarly work in the form of bachelor theses, master theses and Ph.D. dissertations.

5. RESPONSE FROM ACADEMIC LIBRARIES

As mentioned earlier, many of the academic libraries have, in recent years, undergone a radical change of structure, which has been aimed at meeting the new tasks and the new requirements - related to the internal reorientation with greater information literacy and thus to a more comprehensive, more challenging and more frequent collaboration with academic professionals - providing staff and the physical and electronic access to sources, archives, literature and professional knowledge for academia and academia students and scholarly staff in a most practical and professional manner.

5.1. Material and physical adaptations

Libraries have been physically partially rebuilt and partially adapted and adjusted to allow students and researchers to make much use of the amount of knowledge found in the libraries to a much greater extent and in a completely different practical way than before. The libraries are also more adapted to students and researchers staying in the library area near the sources and the academic library's expertise for long periods, and also discuss academic material and research issues with other professionals and researchers who use the libraries at corresponding academically in a fruitful way.

5.2. From service librarians to academic librarians

The biggest change that has taken place when the traditional university libraries became academic libraries, is probably both that the library staff has been given other tasks than before, and that it is retrained and has gained greater academic competence in addition to the previously solid library skills. The academic library staff has been strongly accredited, which has meant that the academic libraries can, to a much greater extent than before, engage in academic dialogue with the academic staff and the researchers at the faculties and departments. The same applies to the dialogue and collaboration with the students at BA, MA and Ph.D. level.

6. RESPONSE FROM ACADEMIC INSTITUTIONS

While many of the academic libraries, both physically and humanly, have largely adapted to the new needs and requirements of the stronger demand for joint explicit focus on information literacy, the traditional academic institutions - on all levels - are quite a success. The challenge is found especially at the faculty and department level. The reason for this is that there are so many different traditions associated with teaching, dissemination and research practice.

First, there are great fundamental and practical differences between the traditional faculties. Humanities and law stand out, for example, by studying, analysing and dealing with new and old texts, artefacts, values, norms, ideologies and philosophies, while natural science and medicine often focus on technology, practical implementation and physical measurements. Secondly, there are major differences within the same faculty, for example, at department level where, for example, theoretical physics has several similarities with philosophy, and where, for example, social medicine has several similarities with sociology, while the medicine used may have several similarities with chemistry and physics.

In this way, the various faculties and departments will have different needs and requirements for the academic libraries - and hence the physical structures of the libraries and the academic libraries as academic competence and profile.

Without having enough knowledge and experience to conclude on these issues, we have little suspicion that the relationship related to information literacy may be best developed between the academic libraries and the humanities faculties, institutes, and academic communities. Many departments and academic communities have established good cooperation arrangements with the academic environments and students at BA, MA and Ph.D. level.

7. RESPONSE FROM TEACHERS AND RESEARCHERS IN ACADEMIC INSTITUTIONS

Academic teachers and researchers like to be free and independent without too much interference from others. That is, there are great cultural differences. The individual culture is perhaps most developed on law and in the humanities. In medicine and in science, enough co-operation in large and partly large contexts is more widespread. This of course puts the mark on teaching, dissemination and research. But in addition to such institutional cultural differences, there are also strong individual sympathies, antipathies and priorities. Some are very open to collaboration across disciplines and subject boundaries, and are positive about input, assessments and common

solutions. Others, on the other hand, are in a strong academic defence position and believe they themselves are the best advisors, evaluators and little open to cooperation - not just across disciplines, departments and faculties, but also to closer collaboration with academic libraries.

8. RESPONSE FROM STUDENTS ON BA, MA AND Ph.D. LEVEL

As far as we have experienced with the practical information literacy implementation and with the collaboration of the academic libraries and the traditional academic institutions at the faculty and department level, the students on all three main levels – BA, MA and Ph.D. – are very positive and much cooperative. This is a very good platform to start with and to expand information literacy tools and methods from to faculties and institutes. We think the students very soon will convince the academic staff – teachers and scholars – to focus on information literacy as a very advanced academic tool.

9. THE UNIVERSITY OF BERGEN LIBRARY AND INFORMATION LITERACY TRAINING

In the early 2000's, the academic sector not only had to cope with the growth of ICT, but also the implementation of the Bologna process, the rise in lifelong learning and widening of access to higher education bringing in new learners with different previous educational experiences. This became a new force for change in the academic library world.

The University of Bergen library has always given library trainings, but the content of the trainings differed.

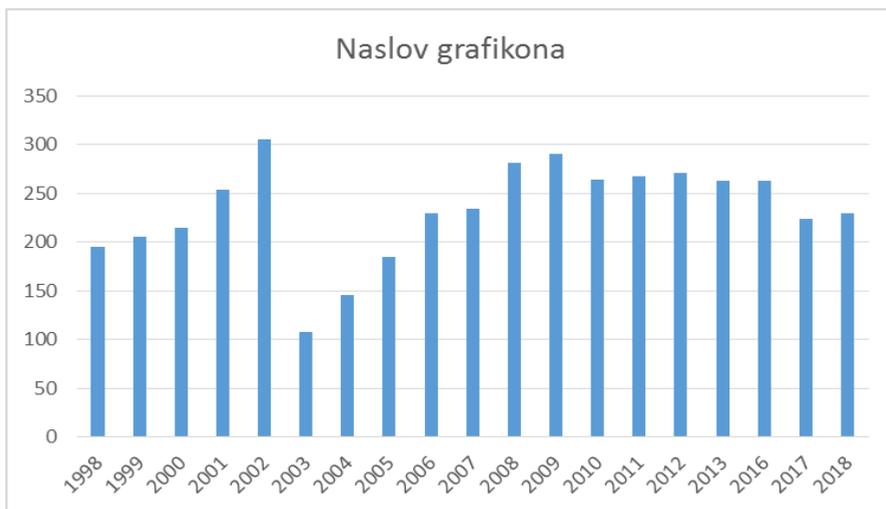


Figure 1 shows the number of library trainings/courses over the 20-year period from 1998-2018. The data from 1998-2017 are taken from the library annual reports found at the library web-site (the reports from 2014 and 2015 did not include the number of trainings) (UiB/UB 2019), while the data from 2018 are found in the reporting tool.

The number of courses are stable around 200-250, and the main reason for the fluctuations are probably the changing ways of registration and documentation through the years, where some years the number of hours used for teaching were reported, some years heavy-duty supervisions and time consuming questions were included, while for other years only the number of courses.

It is evident from the data in the annual reports, however, that the content of the trainings change. In the 1990's and early 2000's the content is reported to be mainly library usage: How to find information through tools, catalogues, and databases. In 2003 the concept "learning centre" is first mentioned, and the discussion goes on to "the digital library" and that trainings in information literacy are needed.

Among the academic librarians, who all had (the equivalent of) master's or doctoral degrees in university subjects, (not library science) the shift from library trainings focusing on tools to the needs in the informational society brought major changes in pedagogical conceptualization. Thus, the didactic activities to a higher degree are determined by the learners. The activities should vary and be produced in small and heterogeneous groups, based on mutual support. Productive learning and problem-solving learning are the main focus, trying to integrate theory into practice and encourage the transfer of knowledge and skills from one discipline to another (Voogt, J.M., & Pelgrum, W.J., 2003).

However, as Hyldegård et al (2011) reminds us: Students cannot be considered as a single group. The information behaviour depends on the level of study, the subject, the libraries' dissemination, interpretations of what is needed in relation to the given situation, preferences and different types of learning styles and personality traits just to mention some of the factors that matter in this context. Information search does not play a major role purely in terms of consciousness among students, but that it of course gets more importance the longer you get in the study. In general, students are happy with the tools and aids that the libraries make available, but the research also indicates that the knowledge of them is generally overlooked and that extensive use of them should not be too cumbersome. The students' use depends primarily on the requirements of the teachers at their educational institution.

The constructivist and post-constructivist perspective on learning puts the transfer of knowledge and skills from teacher to student in a second plan, emphasizing the active role of the pupil / student in their own development of knowledge and skills. We are talking about a new perspective, which places learning in a process of co-participation. The new vision of learning (Situated learning), explore the situational character of human understanding and communication (Popa, D., 2013).

In 2007 the module based web-course "Søk&Skriv" (Search & Write) was launched, developed in collaboration with the academic libraries at the University of Oslo and Bergen, the Bergen University College, NHH Norwegian School of Economics, and Aalborg University in Denmark (www.sokogskriv.no/en). The idea behind the development of the web-course was to develop good models for academic writing combined with tips for better searches. What characterizes writing as a good academic artisanship, and how students, through methodically reading of text, may gather information and use this in an ethical way in their own texts.

In the continuing development of «Søk&Skriv» the library has passed from a focus on theories behind search to directly showing how a student, through planning of the search operation may have a better basis for finding the needed information. The web-course presents searching as a systematic operation, and the students say that they are well helped when it comes to search, and the information source examples are plentiful and concrete (Kavli et al 2014:25)

As mentioned, the Norwegian Qualification Framework (NKR) emphasizes that bachelor students (1 cycle) "can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem". It further expects master students (2. cycle) to be able to "analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments».

In the Søk&Skriv website these demands are articulated through a concretization of what characterizes good handling of information. The library sees as important that students become competent to utilize information in an appropriate manner in their studies and research. This presupposes a strengthened understanding of what it means to evaluate information and sources in

a creative and ethically correct manner. This competence may be transferred to other areas (Kavli et al 2014:31).

10. PRACTICAL COLLABORATION ISSUES

The library quickly realized, when the call for developing the library trainings to include more information literacy skills, that this would require close collaboration with the academic departments and the professors/teaching staff. The university leadership encouraged the development of information literacy courses, but the departments are the organisational level where the practical work needs to be done. The main challenge has been to get the students to come to the courses offered. One helpful thing is when the administrative staff at the department includes the library training in the students' schedule in the learning management system. Another is when the teacher recommends the library training to the students, or even joins them in the library teaching session.

The library has also developed the information literacy trainings to have a progression from the first year introductory course to the specialized trainings at master level. There is always a balance to be considered, between the boredom in repetition for the students that have participated already, and the confusion of students who has not participated in the course on the lower level.

However, with the Søk & Skriv modular web-course to use as a refreshment tool, and the constant pedagogical developments from the library, in close cooperation with the departments and academic staff, the students are well served.

The Library has not tried to use formal assessment as a means to attract students to the trainings.

11. CONCLUDING REMARKS

Information literacy is an academic tool that gives students on all academic levels profound academic outcomes, insights and knowledge unparalleled in academia. We have to develop and improve this tool technically (digitally, electronically, etc.), institutional and individual. All academic institutions (faculties, institutes and centres) must develop information literacy programmes and stimulate their teachers and researchers to take part in this vital investment. Nobody should have any professional excuse not to take part in the development and practices linked to information literacy. Teachers and scholars at all academic levels should be trained in using information as often as possible.

Faculties and institutes not trained in information should be specially trained in using information literacy tools and methods. And above all, teachers and scholars without any training and with low motivation should be focused on specially to gain practices, experience and insight. To participate in information literacy programmes should be compulsory, and information literacy activities should be a natural part in all teaching and research.

Both materially and mentally, the conditions must be facilitated for good relations and optimal communication between faculties and departments on the one hand and the academic libraries on the other. In addition, the universities have to – on the management level, at the faculty level and at the department level – set aside funds for relevant costs and secure employees have enough time to work on relevant information literacy tasks.

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