

Reform of the quality of higher education in Norway – implications for the library teaching

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The Universities and university colleges in Norway have undergone a thorough reform of Quality. This reform was needed to improve the quality of higher education and covers both public and private institutions. It consists of the following main elements:

- change in governance at the institutional level
- increased institutional autonomy
- new funding for the institutions
- new degree structure, that is bachelor and master programs
- new forms of student guidance, evaluation and assessment
- new financial support to students – this has as an implication that students have to finish their master on time
- internationalization

Through the reform, a lot of differences have emerged. We are much more internationalized, we educate bachelors and masters, our studies are more attractive to foreign students, it is easier for our students to do parts of their education abroad, master-courses must be given in English if some students want it, and so on. Students following the different study programs have to make agreements with the institutions: they must finish their degrees on a limited time, they will attend certain courses, certain excursions, follow up lab classes. The institutions, on the other hand, must provide good learning condition, good lectures, flexible education, supervisors with enough time for supervision, in all respects: help the students to reach their goals.

One of the tools that University of Oslo has chosen to facilitate good learning environments is the implementation of the so-called “Flexible education/e-learning project”. This is an attempt to meet the following comment from an external investigation:

The UiO has been lagging behind the leaders of the field when it comes to various applications of e-learning. This concerns the use of PC-based learning for internal students as well as the use of information techniques for distance learning purposes, where the UiO has yet to develop a strong profile. On the background of the institution’s physical and competence resources, one might have expected to see the UiO more at the forefront of these developments. (*Institutional Evaluation of the University of Oslo - The external panel’s report, p.119*)

Flexible education project has a plan of strategy with ICT in education as a superior aim. Among the steps the University of Oslo has to take to achieve a better profile, one is closely connected to the library. This so called objective four says: “UiO’s flexible

education shall give students general ICT skills and general knowledge of digital information resources.” One tool to fulfill this objective is that”UiO is going to offer courses in information resources and library. Responsibility for development of such courses and the implementation of them, will be put on UB” (University library). Although a lot of our libraries have done a lot of teaching before the reform, this is really now something that the institutions should expect from all the libraries.

Some important focuses picked from the “flexible learning plan of action” have implications for our teaching:

- Education shall emphasize student activity. This, together with new methods for evaluation and response, will give better learning environment.
- Institution and students are making agreements and contracts, e.g. about duration of study, mutual obligations and rights.

As mentioned, teaching in the library is not new in our University Library. We’ve had a lot of courses, in BIBSYS, in databases, in EndNote, in information literacy and scientific writing. Lessons have been carried out in many ways. Our faculty library is a decentralized one. Faculty of Mathematics and Natural Sciences Library consists of nine institute libraries, we are six subject specialists/university librarians and we serve 33 study programs, bachelor and master. In both biology and geology we used to meet the master degree students as they start their master study. In biology, even the former bachelor students were offered an introductory course. Some of our institute libraries did not succeed to make a good solution for student teaching, and they are maybe still struggling to find a good model for library teaching. Our practical teaching might not have changed that much with the Quality Reform, but we experience a lot of new challenges. Convincing teachers that information literacy is important for the students and the need for library service for bachelor students are among the challenges. One other challenge has been to make a really integrated set of courses. By this integration our faculty library means not only integrated in the study program, as separate courses, but in the scientific context, in close cooperation with the teachers in the ordinary method course, introduction course or whatever suitable. By doing this we think information literacy will be an important part of education, students don’t necessarily have to be aware of it as a notion, but they will be competent! Our new learning aims may be summarized like this:

- Students at all levels should have access to library courses, adjusted to their needs.
- Library teaching shall be given in connection with the courses given by the institutes. We would prefer that this teaching is obligatory, at least part of an obligatory course. Active participation from teacher is an advantage.
- The best learning environments must be facilitated. These we define as close connected to the student programs, in the same rooms with the same

facilities as the subject specific teaching. Examples and exercises are made based upon the subject specific teaching.

These aims might not necessarily be the best solution on how to give our students library teaching, but they serve as a good basis. Our library user groups have changed under the Quality Reform process, and some observations of these changes are:

1. *Bachelor students*: Earlier, our lower-degree (cand.mag) students could choose freely among a lot of courses. Today they start on a time limited three-year study, most subjects are fixed. They are evaluated differently than before, they write essays throughout the semester. These essays are written based upon the curriculum. But they need and want more information! Our collections are built up mainly as a research library and first- or second year students need help to find good and relevant literature. They might need more face-to-face assistance.
2. *Master students*: now they have very strict time limitations. Master thesis may be a one up to four semester project, usually one or two semesters. Some students have done their bachelor at the same institute and may be familiar with the library. An introduction to scientific writing and searching for information is of great use and the students that already know the library often understand the need. However, a lot of the students may come from another University; maybe from abroad. They might need some more basic information in addition. If we ask the students what they want, the answer is very often that they want help when needed, fastest way to relevant literature. This is of course an understandable need, but we do not have the time for this kind of service. It is difficult to make these students able to achieve general information skills, if it's not directly related to their study.
3. *Their teachers and supervisors*: Focused on the new conditions after the reform. Every reform need some time to work well, but a lot of our scientists claim already that there is no time for research any longer; it is only students, teaching, supervising and administration. Since time is so important, not all teachers find time to spend on library teaching. Even in those course where we used to have a good cooperation with the teachers, we have now met comments as: "the students will get whatever they need from the curriculum", "they get a CD with everything I want them to use, at the beginning of course" or "the students nowadays are so clever in searching and finding information". If we ask the lecturer what would have been a help, we might get answers like "teach them EndNote!" Our concern of such attitudes is of course: How conscious will these new information-seekers be? And what about the maturation process, transforming information into relevant knowledge?

Good practice – some examples.

In our talk we would demonstrate what we offer at different levels in biology and geoscience study programs. Our conclusions are made on the experiences we have done, after two years with the Quality reform. In this paper, we just summarize, what we do and how we try to reach our learning aims.

Bachelor students

As mentioned above, how much time we get with the students will depend on the teacher. At least we try to urge the teachers to find time for an introductory sequence, at least a two hours lesson. In this lesson we really work with attitudes. Students may be at so many different levels! Depending upon the public school teachers and also their background, some of the students are brought up with scientific thinking; familiar with scientific writing and can manage well. A lot of the students have no experience in writing or thinking scientifically. They might be good “buttonologists”, as long as they work on Google or AltaVista. And they do not necessarily know that there are better possibilities.

Most new students need a lot of information about practicalities. Some of our courses focus mainly on these practicalities, e.g. the “map reading trial” in Biological library. As a tool, they need information about BIBSYS, our searchable book catalogue. At some courses we might discover that these students need other databases, so they are introduced to ISI Web of Science or a set of subject specific databases. Sometimes we just show them the database, if they are in their second or third year of the bachelor program; we try to find a place to do some hands-on training.

Examples:

- *BIO1000. Introductory course in biology*: starts with an introduction, short-course in what the library can offer. Important elements of all introductory courses are awareness of information needs, different sources and source evaluation, After this lecture they go to the library, they are shown around by doing a practical “map reading trial”. Questions may be like “Who wrote “The Silent Spring” in 1963? Find the book!” or “You have found the book and want to borrow it, what do you do?” But they also have to try stuff like “find a book about environmental chemistry and carcinogenic agents”.
- *NAM1000/1010. Two semester courses from environmental studies*. This is a collaboration program between different departments, geosciences and biology. We may have two sets of lessons; the last one in NAM1010 includes practical training.

- *GEO1010. Introductory course in geosciences*: we have already tried out two models in this course, depending on the responsible teacher. One or two hours introduction is overwhelming for a lot of people, if this is not combined with some practical exercises or at least a guided tour in the library. The best experience so far has been when we were able to work with the students in groups, directly in the library. They did not necessarily do so much training on their own, but they who were interested could try.

We can see that those students attending our courses are more likely to use the library more, sooner after the course. They know who the librarians are, it's easier to ask for help and, very important, they know about what the library can offer. We don't think these students will be the best search specialists after the course, but some of them have clearly become more aware. Cooperation with the teachers are still a challenge, it is important that we follow up good contacts and reminds them that we are there to help.

Master students

Up till today, we can not give a certain answer what is the best way of teaching information literacy to our natural science students. These last two years, however, have shown that by connecting courses directly to study programs; library teaching has become a more natural part of the study. But if it was up to the teachers, we would most likely have been standing in class, teaching BIBSYS and ISI Web of Science searching. Based upon our learning aims and the plan of strategy for flexible education, we are sure it is possible and important to take the students further than that. We do have a lot of clever students that manage very well, but we have to try to equip all students with basic information skills.

As an example, we start our first lessons with the master students with the following "point of view", which challenges does a master student of today have:

- How could I cope with the constantly growing flow of information?
- How can I find the information I need? I don't want to read through a huge amount of pages on Internet!
- How can I be sure that I have found the best information – or that the information is good enough?
- How can I store the information for later on use?

In few words, this can be seen as the main purpose of our courses.

MBV4010. Methods in molecular biology and biochemistry I. In this course we work in close connection with the teacher. The course is an intensive one, seven weeks of lessons and lab training. Library lessons are about 14 hours. How this course is further carried out will be showed on a PowerPoint presentation. The main point is that we base teaching

upon a real approach, a lab exercise with obligatory report. By help of this report we go through the whole searching, writing and referencing processes.

Other examples will be shown during the talk and shown in the PowerPoint file.

EndNote as a didactic tool

Referencing and citing are important in academic writing, but also a difficult task. Our Library uses EndNote as a bibliographic reference tool. This is not an easy program to get familiar with, and we offer courses for master students, PhD. students and other academic staff. In our master student courses we have tried to use EndNote as a tool to check and really try out ability to search different databases and evaluate information.

In the course MBV4010 EndNote is taught simultaneously as the students are working with their lab project and writing their report. In other courses this might not either be possible or desirable. In geosciences we offer EndNote later on, maybe several months after the introductory course. Here we try to connect EndNote and reference work to excursion reports or start of master thesis.

Conclusion

Students from the Universities and University Colleges are supposed to finish their education as people with good information skills, a good basis for lifelong learning. At the University of Oslo, the University Library has been given the responsibility to carry out this part of education. After two years with Quality Reform, we are not exactly where we want to be. We have to continue working with the scientific staff, to get acceptance for the importance of information literacy. The problems are clearly connected to the fact that teachers feel that there is too little time for the subject related teaching. But also to the teachers attitude; the students will manage as long as they get the curriculum. At the same time, we see that in those study programs where we have good cooperation with the teachers, we are able to give well integrated lessons, library use an information skills are improved. Collaboration with the scientific staff is a prerequisite for reaching our learning aims!