# "What did you learn in school today...?"

Teaching information literacy and measuring learning outcomes at Sør-Trøndelag University College, Trondheim

Authors: Astrid Kilvik and Liv Inger Lamøy, librarians at Sør-Trøndelag University College

## **Background**

As librarians at Sør-Trøndelag University College, we have for years had close collaboration with academic staff at the postgraduate programme of oncology nursing. We give lectures in big auditoriums on different topics, e.g. evaluating quality on internet-sites. We also offer hands-on courses for smaller groups on using the library catalogue and a number of reference databases. Five learning goals for the library teaching have been formulated. These goals correspond with the faculty's own evaluation criteria for the student's final assessment. One of the learning goals is to make the student able to understand search strategy, including how to build a literature search, how to choose search terms and how to use thesauri, operators and truncation. In our presentation we are centring on this learning goal.

The other learning goals focus on the student's ability to:

- understand how to critical evaluate sources
- understand which databases/sources that are relevant to their information needs
- critical evaluate their search results
- find full-text journal articles based on search results

We have constantly been discussing what the participants really learn from the library's lectures and courses. Thus we aimed to measure the learning outcomes of our teaching.

#### Method

Two studies were performed. The first was carried out in 2005. Here we divided a class of 17 students into two groups. None of the groups had attended the library's hands-on course on searching Medline and Cinahl. The first group was asked to perform some specific searches in these databases while writing down search terms, results of their searching etc. At the same time the second group got the Medline/Cinahl-course. Later on the two groups changed roles. Then we compared the search process and results of the two groups. In the latest study, which we are concentrating on in this presentation, we analyzed the final assessments of the same class of students. The investigation was made in 2007, about half a year after the class graduated. In our reading we focused on how the students search techniques, use of sources and references etc appeared in their assessments.

# **Findings**

The students manage quite well to find relevant search terms in both Norwegian and English. But we also observe that few of the students are using synonyms. Search language was a challenge to the students in our first study. In the study from 2007 the situation has improved, and most of the students choose the language relevant for the actual database. Still there are some difficulties with English spelling, and one-fourth of the students use misspelled English search words. These students continue to use the misspelled words all through the search-process without being corrected, the errors often leading to poor search results. Use of truncation is emphasized during the library teaching. Still only half of the students use

truncation in their literature searches, and most of them uses the technique wrongly or with little understanding. In the library teaching the students are trained to use the databases' thesauri. Our investigation shows that half of the students make use of this knowledge. The number probably should have been higher, because all of the students search in databases where they would have benefited from using thesauri. Almost all of the students manage to combine search terms with the AND-operator. More advanced combining, e.g. search for synonyms with the OR-operator is scarcely used.

#### Conclusion

Even if the students in their assignments show that they to a certain extent handle most of the elements in the learning goal, they are still doing considerable errors in building search strategies and conducting literature searches. It seems difficult for the students to achieve full understanding of some of the elements, like use of thesauri, truncation and combined searches. Also it is noteworthy that misspelling in literature searches for the final assessments is not revealed and corrected. The learning goal is not fully achieved, and we see a potential for improvement in our teaching.

### **Discussion:**

How can we as teaching librarians use the results from the two studies to change our educational practice?

In general we believe that a deeper information competence can be achieved if library teaching becomes a fully integrated part of the education programme. More specific:

- Closer collaboration with academic staff to adjust library teaching to students writing processes.
- More hands-on training (courses and workshops), where e.g. use of thesauri, operators and truncation is even more emphasized.
- Giving students opportunities to reflect and cooperate in a social setting.
- Take a more active part in tutoring the students.