

**Wrestling with the appraisal and production of evidence – and the winner is ..!**

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**Objective:** using EBLIP to stimulate professional (scholarly) development

**Setting:** a large medical research library in Sweden.

**Method:** two approaches have been taken involving: 1) the development of the critical appraisal skills of the library staff, and 2) the production and publication of evidence. For the development of the critical appraisal of evidence, we have been holding a journal club since October 2004. The club started as a less structured meeting using a home-made template for the contextual analysis of the articles, and has more recently developed into a more stringent and objective critical appraisal exercise including the use of the CRiSTAL checklists. On the side of the production and publication of evidence, we have recently run two projects. Firstly, a qualitative research project using the method of “participant observation” to investigate the information searching behavior and IT support needs of younger researchers (under 40); based on the insight that more local knowledge is needed about their actual everyday information behavior when using the electronic library or other resources. Secondly, we have attempted to use collaborative writing in the production of an article on library educational development with a view to

Lotta Haglund

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make the writing process easier and more effective and spread knowledge about the project amongst the staff.

**Main results:** the outcomes from these two approaches are promising. Awareness about LIS research, about qualitative research methodology (specifically) and the scholarly awareness (generally) have increased markedly amongst the library staff by using the EBLIP approach. We are also seeing indications of the effect of these efforts on various library activities, i.e. team discussions and user education. Library staff also shows more interest in reading the published literature and publishing themselves.

**Conclusion:** to be able to develop the services of the library to better suit the academic setting of the future, one strategy is to develop knowledge about research methodology and design, and the scholarly work of researchers. Using the approaches described above is helping to open windows into the research world.

### *Introduction to wrestling*

Our journey into the realms of EBLIP really began in a more formal way about two years ago when we started a journal club at the library. We could say that the journey was well planned from the start, but that would be a deception. Instead, the itinerary developed as we went along; and where did we end up? Not at the final destination (yet), but in North Carolina!

But before we start, here is a short introduction to our library; the Karolinska Institutet University Library, which is known by the curious local acronym KIB!

KIB is the largest medical library in Sweden, catering to the medical information needs of mother organization, Karolinska Institutet (KI). The Institute was founded in 1810 and is situated in the capital of Sweden, Stockholm. KI is in fact a medical university providing education for all types of medical professions, but it is also very medical science research intensive; KI is probably most well known abroad for being the awardee of the Nobel Prize in Physiology (or Medicine). The Institute has a staff of approximately 3500, of which around 2000 work as researchers (often combined with teaching), and some 7000 students. The library has a staff of 124 (of which 57 are

librarians) working (at two library sites in Stockholm) with all aspects of modern medical librarianship from e-books to 3D animations.

As background it can be noted that academic librarians in Sweden are not under pressure to do research and publish in scholarly journals in order to secure tenure or career advancement. It is definitely not a case of “publish or perish”! In addition, there are a very limited number of Swedish LIS journals to publish in! Despite this, there is a great deal of professional interest in Sweden to describe and present library developmental projects in the form of reports and conference papers.

This conference paper will describe how we work with our journal club (which has been published in a Swedish LIS journal called InfoTrend (Haglund & Herron, 2005)), it will describe a qualitative research project to investigate the information searching behavior of young researchers (which has been submitted to the Journal of Academic Librarianship; (Haglund & Olsson, 2007)) and finally, it will describe our efforts to support the scholarly writing process in the library (the product of which will be published soon in the InfoTrend journal; (Schmidt, 2007)).

### *Approaches to wrestling*

#### **Round 1 - Journal club to appraise the evidence**

We will assume that most readers are running a journal club or are highly familiar with the idea of journal club for the development of critical appraisal skills. Therefore, we will here describe the perhaps more idiosyncratic aspects of our club. There are other models for running a journal club, for example see Pearce-Smith (2006) and Kraemer (2007). The Club happens about every six weeks.

Firstly, actual literature is scanned for suitable articles, avoiding opinion pieces. Secondly, we try to cover the six domains of EBLIP (according to Crumley and Koufogiannakis (2002)) as well as try to take into account what is a “hot topic” in our local library environment. The authors make the final choice and then staff is informed about time and place. Staff is allowed about two hours to study the publication *during working hours*. Usually 6 – 14 staff turns up to the one hour club which we try to make inclusive, not exclusive, and by varying topics we manage to catch different members of

staff in the journal club net! The background analysis (see below) is usually done by the authors.

The club is intensive and process driven; and anyone can comment as we follow our templates and evaluate:

*The quality of the journal generally* (Is the journal peer-reviewed? In which databases is the journal indexed? Does the journal have an impact factor and how does it rank within the subject category according to Journal Citation Reports?)

*The type of publication* (Is it primary, secondary or tertiary?)

*The authors* (What is the author's professional background and affiliation? Has the author published earlier and if so, in which areas?)

*The impact of the research* (Has the article been cited in a citation index or Google Scholar? Has the article been evaluated in Faculty of 1000?)

*The domain of EBLIP* (To which of the six domains of EBLIP does the research belong and what type of study design has been used? Both according to Crumley and Koufogiannakis (2002))

*The robustness of content* (How does the content stand up to Critical appraisal – looking at Objectives, Design, Setting, Subjects, Methods, Main Results and Conclusions?)

*The Validity, Reliability and Applicability of the study*

(How does the study stand up to the CRiSTAL check lists?:

<http://www.shef.ac.uk/scharr/eblib/use.htm> and

<http://www.shef.ac.uk/scharr/eblib/needs.htm> ; accessed on 27th March 2007)

*The final belief* (Do we still believe in the study despite everything?! See Booth (2007))

Generally speaking, we seem to have found a system that works in our local environment. Intensive, “short and sweet”, are the key words. The staff looks forward to a “bit of intellectual challenge” which lifts the mind from its operational mode. We are not asking specific questions nor expecting the club to change practice, but this activity seems to provide an intellectual baseline upon which build.

After the first year of journal club, we asked the participants if the club had influenced their everyday working practice. Many answered that it had, but not in a

concrete way; although the professional literature seems to be addressed more often. However, journal club has clearly affected two aspects of post-graduate teaching in the library. Firstly, LIS research articles are now included as teaching material. Secondly, the journal club approach is used in teaching about the post-publication evaluation of medical sciences (more or less following the list presented above, except for the evaluation of the robustness of content etc.)

Finally, the authors are also gradually changing their perspective on evidence as being hierarchical in nature (as in evidence-based medicine) to being a spectrum of evidence with meta-analysis and systematic reviews being at one end and good qualitative research being at the other end of the spectrum (see also Given (2006)).

### **Round 2 – A qualitative research project to produce the evidence**

Instead of continuing to speculate about the information behavior of biomedical researchers at the Karolinska Institutet (and two other Swedish universities), a qualitative research project was launched to follow researchers during their everyday working lives, and observe what they did, especially when came to getting research information. The method of “participant observation” was used, as applied in ethnology, and two main questions were in focus during the observations (though not directly posed): 1) how do young researchers search for information and 2) what do they need in terms of IT-services or support? The method allowed us to leave speculation firmly behind the library the wall!

Participant observation is an explorative method (without hypothesis testing) in which the observer is part of the studied environment – talking, socializing, and having the same experiences as those being observed while constantly making notes. The project has given library staff invaluable insights into the every day life of the faculty at KI. The results of the study will not be presented here but hopefully elsewhere ((Haglund & Olsson, 2007)). Needless to say; according to the study... Google is King!

This was probably the first time that the staff at KIB has carried out a qualitative research study using an established research methodology and the project has generated a lot of interest both within KIB but also from other academic libraries in Sweden. So we learnt that it is possible to sit on the shoulder of the users and observe! But we also learnt

that is not so easy to digest and analyze the large amount of data produced by the method in an unbiased way. The project, however, has had two concrete effects on practice: firstly, the library web-site has been revised and updated to make it more user-friendly and secondly, new efforts are underway to get librarians into the world of researchers rather than trying to get researchers into the world of the librarians.

### **Round 3 - Collaborative writing to publish the evidence**

At KIB, there is a need to reflect over practice. It is therefore not beyond the realms of fantasy to think of ways of helping a potential author librarian with an interest in written communication over the threshold into more scholarly writing.

The BIGGEST barrier is perceived as TIME, and therefore originally the project was optimistically entitled “Speed Writing” in order to reflect the hope that the writing process would go quickly. However, this title evolved during the course of the project to become “Collaborative Writing” and may finally land in “Writing Support”, since this seems to be a more realistic outcome of the effort. Others have worked with writing support in a library environment; see Tysick and Babb (2006).

The project involved giving writing support to a member of staff who wanted to publish an article on the use of Constructive Alignment in the development of library education (Schmidt, 2007). The English summary from the finished article describes the educational development involved as follows:

*The article describes the educational development of a 1 credit course in information literacy for post-graduate students who were starting to do research in the field of nursing care. The concept of Constructive Alignment was used in course design and post-course evaluation and the hierarchical SOLO taxonomy was applied in the formulation and assessment of learning outcomes. The results indicate that the participants had probably reached higher levels of learning according to the taxonomy and therefore, educational intentions seem to have been achieved. Participants were generally pleased with the course. Teachers found the educational control gained through the use of Constructive Alignment, SOLO and relevant learning activities highly satisfactory. However, it was experienced as difficult to objectively and systematically grade the examination*

*responses with regard to the taxonomy of learning outcomes. Questions concerning the strategic development of research library educational activities are also raised in the article.*

At the start, Herron interviewed the potential author librarian in order to understand the nature of the project and what kind of writing support would be needed. It was clear that the writing process could be facilitated in a number of general areas:

- Word processing
- Information retrieval
- Reference management
- Making figures
- Language correction
- Writing the English Summary
- Help with the publication process

There were also two areas that required some subject knowledge (that is, about educational development):

- Mapping of the examinations against the SOLO taxonomy
- Getting feedback on the content of the text

In the project, the writing support was provided by the members of the user-education team as well as the authors of this paper. The tasks were divided across the members of the team and support was provided in a synchronous and asynchronous fashion.

As a first example, in the case of information retrieval and reference management, support was provided by four members of the team who constructed search strings using the keywords and synonyms for constructive alignment, SOLO, learning outcomes and library. Twelve databases (ERIC, LISTA, PubMed, SSCI; CINAHL, Nordiskt BDI Index (Swedish), PsycInfo, EMBASE, SCOPUS, Google Scholar, Wikipedia and National encyclopedia (Swedish)) were scanned. An EndNote library was created with highly relevant and relevant hits (perhaps 30 in total). The librarian author was then able to quite quickly, by reading abstracts, assess the usability of the references and incorporate them into text. In the second example, Haglund checked out in advance the pros and cons of three different LIS publications (two Swedish and one English), as well as requirements for publication as a basis for deciding which journal the manuscript should be submitted

to. A decision was made to publish in the first hand in Swedish (in the journal InfoTrend) and, having looked into the requirements for publication, Haglund was able to quickly take the finished manuscript through the publication process.

In this way the author librarian was able to focus on the demanding task of writing a more scholarly text, knowing that support was being provided “behind the scenes” by colleagues.

The collaborative writing project had a number of effects. Firstly, knowledge about Constructive Alignment etc was spread among the library teaching staff. Secondly, insight was gained into how to support writing by the disaggregation of the writing process; this is influencing our ideas on how the library can support writing and publication. Thirdly, some librarians have expressed an interest in writing in the knowledge that support can be close at hand!

### ***Conclusions of wrestling***

We have been wrestling with the implementation of appraisal and production of evidence and even though it sometimes has felt like we have been up to our eyeballs in mud, right now we are beginning to feel that our vision is clearing, and we are firmly committed to continue in our efforts to increase awareness of EBLIP in everyday library practice at KIB. So, the winner is... Karolinska Institutet which in the long run, will have an even better library!

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Lotta Haglund

Wrestling with the appraisal and production of evidence – and the winner is ..!

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