Researchers and librarians as co-teachers using the theory of constructive alignment

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Yvonne Hultman Özek, MSc
Faculty of Medicine
Lund University
Sweden

Build a bridge!

Outline of today's presentation:

- Overview of the post-graduate course
- Review of the literature on researcher-librarian collaboration
- Development of the post-graduate course
- Constructive alignment in theory and practice
- Recommendations for the teaching librarian

Scientific Communication in theory & practice:
One week compulsory post graduate course, 1.5 credit,
Faculty of Medicine

- Course leader: academic librarian

- Five faculty teachers (researchers) and two academic librarians

- Organization of knowledge
- Journals and peer review
- Writing science in plain language
- Constructive criticism on scientific texts
- Information management (information literacy practice)
- Methods for research evaluation
- Writing for funding

2 written assignments

Today’s questions

1. What skills and knowledge is needed for the academic librarian to become a teacher?

2. How can a faculty-librarian liason in teaching develop and be maintained?

Review of the literature:

- ”Education in librarianship lacks training and preparation for academia”
- ”Library management policies focus on the organization as a ”delivering service” unit rather than an ”educational unit”.
- ”Librarians have limited or no knowledge in learning theories.”
- ”Librarians teach skills lacking a context.”
- ”Librarians do not teach ”real subjects”.
- ”Librarians blame faculty for lack of understanding.”
- ”… and librarians do not always wish to belong to the academic culture”.

What does the literature tell us about faculty-librarian teaching collaboration?

- Undergraduate programs – many success stories with regard to information skills and management (information literacy practice).

- Post-graduate courses – not much (documented).

The development of teaching collaboration – example from a post-graduate course at Lund University, Faculty of Medicine

Organizational background
Medical Faculty Library

- *Integrated* with the Faculty of Medicine since 2000 & reports back to the Faculty Board.
- *Embraced* the universitys' and the faculty organizations' mission statement for faculty development in 'teaching in higher education"
- Early *establishment* of staff development policy and to be part of faculty development for teaching in higher education.

Constructive alignment in theory

1. Students construct meaning from what they learn.

2. The teacher align learning activities with the learning outcomes.

(Biggs, J. B. et al. Teaching for quality learning at university. 2007)

Strategies for creating the PhD course ”Scientific Communication”

- Field study and participation in independent PhD courses.
- Analysis & self-criticism, the current 1.5 day course in information management.
- Looking for a context; red thread; alignment.
- Proposal for submission - coherent new course rather than independent courses related to scientific communication.

Scientific Communication in theory & practice: one week post-graduate course

- Course leader: academic librarian

- Four researchers in medicine
- One researcher in the humanities
- Two academic librarians.

- Organization of knowledge
- Publishing models, OA etc.
- Journals and peer review
- Writing science in plain language
- Constructive criticism on scientific text
- Information management (information literacy practice)
- Methods for research evaluation
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2 written assignments

Components of ’scientific communication’ in no specific order:

- Information retrieval
- Peer review
- Role of the journal
- Copyright issues
- Publishing model
- Organization of knowledge
- Archiving & ”recycling”
- Evaluation of research
- Citations
- Reference management
- Writing & publishing
- Bibliotmetrics
- Dissemination of knowledge
- Writing for the general public
- Constructive criticism
- Structure of the article
- Self-archiving

Constructive alignment in theory

1. Students construct meaning from what they learn.

2. **The teacher aligns learning activities with the learning outcomes.**

Constructive alignment in practice:

Explain how the components in topics interrelate, that is, common sense.

Intended Learning Outcomes

The aim of the course is to develop the participants understanding of the complexities of scientific communication.

The course participants shall after the course **be able to:**

- ***Explain*** the system and the social structure of the scientific publication process and publishing models, based on examples from own research area.
- ***Apply*** search methods and structured strategies for retrieving information from relevant medical databases, based on own research area.
- ***Use*** the basic functions in a reference management program within the context of writing and submitting a manuscript.
- In writing, ***formulate*** a scientific text in plain language aimed for the general public.
- ***Identify*** and use tools for constructive criticism in writing as well as in speech
- ***Explain*** how to organise and structure a grant application based on the knowledge how an application is evaluated after submission.
- ***Explain*** how research is evaluated with its different methods and analyze their strengths and weaknesses.

(Updated in April 2009)

Our teaching activities

- Interactive lectures
- Discussion groups
- Feed-back partners for written assignments (peer-to-peer)
- Practical exercises in information management

”The teacher aligns learning activities with the learning outcomes”

Challenges for the course leader (librarian):

- The diversity of teachers in one course
- Communication channels
- Unite in the definition of ”scientific communication”
- Unite in a pedagogical approach
- Align the parts to recognize the ”red thread” for teachers and course participants.
- Create context for the information management.
- Theory to practice to theory.
- Remain consistent when new teachers come in.

Of greatest importance is …

- Questions in participants course evaluation is based on intended learning outcomes (ILO) – and *not* specific lectures.
- Teachers get the course evaluation - transparency
- Reflective comments from teachers.

leads to…

…facilitating communication and makes the teachers (researchers and librarians) gradually focus on the context of scientific communication, the alignment and their contribution rather than focusing solely on their lecture as “independent” and most successful.

Example of a question in the evaluation

*Estimate how well you have learned, and achieved the **learning outcomes** of the course:*

1: To little extent
5: Very much so/To a great extent

"Explain how research is evaluated with its different methods and analyze their strengths and weaknesses"

"Explain the system and the social structure of the scientific publication process and publishing models"

The dynamics of ”constructive alignment”

Tools for identifying the ”non-alignments”

- Participants’ course evaluation
- Level on intended outcomes

- ”Critical friend” method
- Reflections by keeping note
- Course leader present in the class room during the week.

- Meetings with the teachers

Communicate and collaborate for improvements in teaching

Meetings, phone calls, emails:

Reflective comments:

maybe I should …
how about if you…
can we take this out? …
can you summarize on Wednesday…
what if we move this to …
let us test this …
did it work? …

Implement the adjustments! Try again!

The dynamics of constructive alignment

- The reflective teacher who constantly:
  - modifies course design
  - make adjustments
  - attempts to work closer to the ”perfect” constructive alignment

Thus…

…using the language of constructive alignment is the core for communication and collaboration in the teaching team – researchers and librarians together– with the aim to continously improve the quality of the post-graduate course ”Scientific Communication” for better learning.

In sum:

- **Implemented policy** on academic teaching on university- and institutional level
- Library **shares values** with the mother institution, teaching in higher education
- **Collaboration** with the pedagogical unit – in practice.
- **Continued education** in learning theories on faculty development level

1. What knowledge and skills are needed for the librarian to become a teacher?

- Get academic qualifications by study the learning theories together with faculty.
- Understand your mother institutions' values in teaching in higher education.
- Communication skills on an academic level.

2. How can a faculty-librarian liason in teaching develop and be maintained?

- Continued education on ”teaching and learning” on faculty level.
- Audit other PhD courses.
- Get involved in projects related to educational issues at your mother institution.
- Think long term, be consistent, outline the priorities in your tasks.
- Remain a reflective teacher and communicate with faculty.

Document your experiences, use theories, publish !

“Primary differences between the teacher-librarian and the teaching librarian include self-image, academic qualifications and cultural norms of the institution. Teacher librarians see themselves as teachers first, librarians second …have teaching qualifications and library qualifications … in contrast, the teaching librarian is a librarian first, teacher or trainer second… *ironically, usually the academic does not have teaching qualifications either…* “

(Lupton, M. 2002)

So what stops you from building that …

Thank you !