Library Information Literacy Education: Teaching-Learning Philosophy

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Objective

• Show how teacher-librarian can become an agent for change in library information literacy education according to teaching strategy concerned e.g. PBL-dental edu. UiT

Specific:

-Definition of what I teach i.e. Library information literacy education in my context

- Aim of teaching library information literacy in dentistry education

- Planning and outline of the library information literacy in dentistry education including formulation of my own philosophy and or thinking for improvements in teaching

- Relevant lessons learnt from the teaching experiences and pedagogic course attended

- Conclusion remarks.

Library Information Literacy Education

Difinitions:

1. the ability to know when you have need for information, what type of information you need and how you can find, assess and use the information in an effective way

2. a new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure, and its social, cultural, and even philosophical context and impact (Univ. of South Florida)

Information literate person according to Rasch & Trondsen (1999) is the one who:

- identifies the information need

- realises that the relevant and complete information is the basis for wise decisions

- identifies required aid/facilities for searching information, develop searching methods/strategies, uses different information resources – both traditional and electronics.

- organises the information for practical use and integrates the new information with the already known information

- uses the information in the right way

Why the course: Library information literacy

Students and Researchers:

- able to search and find relevant information for a given topic/problem.

- able to evaluate the information as required and use it

- able to locate, order and manage their loans

- find full texts for reports found through different relevant databases

- have knowledge about the university attitude to plagiarism

Due to developmental changes in MDV & health sciences education curricula

- PICO worksheet and Search Strategy. A problem is solved by defining a question using PICO

P = Population/Problem
I = Interventions
C = Comparison
O = Outcome)

- **Case Example, based on Jane and Syrene (2003)**

A new patient, Mr. Peter Kristiansen, is a 40-year old, Project leader and is not a coffee drinker and former smoker. His main complaint is the discoloration of his front teeth. It is getting worse as he gets older. He wants his teeth whitened 3 wks before attending xmas party. Bleaching in the office can be provide or make him custom trays for use with an at-home whitening/bleaching system. He questions you about the differences between them and the new whitening strips that do not require a tray and can be purchased at the local grocery store. Peter insists the whitening strips are just as effective and cost considerably less.

But student not familiar with the scientific literature on the whitening strips to answer Peters's questions.

What should the student do?

…….…….must define Peter's question

How?

The PICO Worksheet and Search Strategy form can assist

See example here: PICO Search Strategy

Search example in PubMed

The Evidence ladder

Students

Able to evaluate and rank information from high-quality systematic reviews to case series and other descriptive studies

Thus - <u>Critical Appraisal</u>

Note:
Students should be encouraged to use information with the highest level of evidence because they don't have experience to select quality information

Critical Appraisal (CA)

- CA made easier if students understand basic concepts of clinical research designs

- In Health Sciences, **Systematic Reviews** and **Metaanalyses** (based on Randomized Controlled Clinical Trials, RCT) represent the strongest evidence (highest level of evidence)

- However, Diagnosis, Prognosis and Causation, may demand other study designs like Cohort Study or Case Control Study

- However students should be encouraged to use the strongest study design whenever possible - highest level of evidence (Sutherland, 2001)

- Such approach would help even inexperienced students find & use high-quality EB information which is now of priority among researchers

Planning and outline of the course

- Involvement of researchers from the institute is required

  ✓What to include

  ✓ When to teach (appropriate time – relevant to students)

  ✓Improves network between library and institution

3 groups to teach at dental institute - UiTø

1.   Bachelor students (beginners)
2.   Master students (thesis writing level)
3.   Researchers (PhD/stipendiat & all researchers/professors)

Content of the course to these groups differ but the general outline is similar in a way.

Generally composed of two parts:

Part one
- Lecture in information searching for about an hour and there after students are given an
  exercise to test or practice for the next hour

Part two
- How to assess the validity and sources of research information (Kildekritikk).
- Correct use of information, including plagiarism and its consequences (Citation &
  references).

Other courses taught

- Electronic documents in the library.

  1 hr lecture with demonstration live on-line

  > In a way it also helps to market the e-resources the library offers

- Specific database course upon request: e.g. Medline and PubMed.

  Detailed search methods in database in question

  2 hr theory/lecture and 1 to 2 hrs practice depending on students intellectual level

- EndNote as a reference manager (becoming more and more popular in M & D)

Note: These three courses are mostly taught at master and PhD/researchers' level
   on request

Library Information Literacy at Bachelor' students level

- Currently is permanently fitted in the study-schedule at the beginning of autumn semester – **obligatory**

- Dentistry & medical students take it together (integrated in the first 2 years of study)

Not sure if scheduled best - (Basing on evaluations meeting)

- Students get a lot of information at a very limited time.

- Newly recruited students may not know yet the value of searching articles.

- Students have to have a need for searching articles; otherwise they do not see the value of this course since no exam or points is given (students not serious)

- Revision of the course required to fit well with the needs of dentistry/MDV education curricula (PBL-Evidence based)?

Suggestions:

- The course divided into 3 parts as (below). Introduction, Searching/practice & Kildekritikk

- Professors consorted to help time-plan schedule and content/needs (appropriate)

- PICO Search Strategy to be considered in the course (**Evidence-Based** requirement - Healthy science in general / MDV inclusive)

First day of the course

- Should be at beginning of the semester (Introduction)

- Meeting students and introducing the basics in library information education

- Show them around in the library and how to get there from their institution?

- Make students feel comfortable in the library, prevent library anxiety

- Give them a face of me and other librarian involved (Acquaintance)

- The aim should be not to teach them all about the library but to evoke curiosity

- ➢ This introduction part should be really short, ca. 30 minutes.
- ➢ **Less is more!** That's my basic philosophy.

Second day of the course.

- After some time when they have information need for a given task, we meet them again

- Aim is to give students opportunity to learn & use the library catalogues and one databases

  - ➢ Pub-Med or Medline

  - ➢ Google and Wikipedia as extra search engine compared to Pub-Med or Medline (Know difference)

- Evidence based journals e.g.. EBD and BMJ Clinical Evidence should also be oriented

- Goal is to enable students to search information for a given topic/theme

- Students sensitised on scientific open-access journals/archives (BioMed Central, Munin)

- This part should take ca. 2 hrs. First hour lecturing and next practice next hour

- Searches using PICO model already introduced now - not detailed as at master level (Evidence Based search)

Third day of the course (Kildekritikk)

The goal is to make students:

- Know how to evaluate information source

- Compare searches made between searching information using library resources to Google or other internet free searching engines (with examples)

- How to use information (citation and References)

- To have knowledge about the university attitude towards plagiarism including where to find information about it (to avoid accidental plagiarism)

- Be sensitised on where to find, download and use the reference manager including the subject websites i.e. dentistry website (fagside).

Evaluation of the course:

- Reflection paper as an appendix to the first "take home exercise/exam" after taking the course - explaining how the data was collected and how difficult/simple it was.

- The appendix to be marked/assessed.
  - ➢ Help in improving the course. Even make students be more seriously about the course than they do today

Library Information Literacy at Master students' level

- Procedures same as above but at this level the first part is skipped

- Information searching (part one)

  ➢ More detailed than at BSc. Level

- Explanation of key to evidence graphic used in the EBDJ, (http://www.nature.com/ebd/journal/v8/n3/pdf/6400506a.pdf)

- Make known to students about Clinical Queries in PubMed - can provide a quick check of the literature (may not always be as accurate as a PICO search)

Part two – Master ....

- Information evaluation (Kildekritikk) – ref. BSc. Level above.

- Goal is to enable students to know how to evaluate and use information properly (avoid plagiarism).

Students should also be able to:

- Know the structure of the scientific paper
  - ➢ a title
  - ➢ Authors
    - ✓ authors for recognition – data collection (intellectual contribution)
  - ➢ Abstract
  - ➢ Introduction
  - ➢ Methods
  - ➢ Results
  - ➢ Discussion *
  - ➢ Conclusion
  - ➢ Acknowledgements
  - ➢ Reference list (all cited references should be included)

Besides: Evaluation assignment

- Give students a take home assignment (appendix 3)

  ➢ The assignment to be marked/assessed.

  ➢ Help in improving the course. May help students to understand the course better. Practice makes perfect!

__Note__

- Currently not permanently fitted in the study-schedule. But highly recommended to permanently fix this course (just before writing projects/thesis)

PhD students/Researchers

- The course conducted upon request

-   Conduct search strategies as at master level
    - PICO
    - Evidence – level
    http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD006202/pdf_fs.html

- Course - "electronic documents in the library"

- Data bases in details e.g. Medline

- EndNote is also taught at this level

Teaching materials on the net

- Net based learning – PRIORITY?

- Increasing interest among today's education institutions in use of modern information and communication technology (IKT)

- E.g. http://ekweb.uit.no/docs/pub/dok00244.htm

- Establishment of internet teaching method as a media to reach our distant users/students - would be of priority to the library

  ➢ e.g. during the period when the dentistry students are on external clinical practices?

Conclusion:

- The library, as gateway, is the means by which students & researches will locate & use the information

- Teaching and or pedagogic activities in library information literacy education should therefore be prioritised in the world of science and education

- But to make users library information literate can be challenging because it is more than teaching. Requires much relevant activities from students, interaction among themselves & teacher, interaction between libraries and institutions e.t.c. (Support)

- In Medical, Dental and Veterinary education, new curriculum developed has to be imbedded in library information literate course
  - Evidence-based dentistry is highly recommended in new curriculum
    - Requires understanding new concepts and developing new skills
      - PICO strategic search & evidence level
      (agents for better changes in library information literacy education)

- Teaching-learning philosophy (philosophy of education) is not just the way one thinks,
  - but also the way one acts
  - one's educational philosophy is embedded both in what one believes about teaching and learning and what one actually does in practice

Teachers in the higher education should be more of facilitators than leaders!

The End! ☺