Information literacy for post graduate medical students at the Aga Khan University (AKU), Kenya: a multidisciplinary approach

Nasra Gathoni
Aga Khan University, nasra.gathoni@aku.edu

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INFORMATION LITERACY FOR POST GRADUATE MEDICAL STUDENTS AT THE AGA KHAN UNIVERSITY (AKU), KENYA: A MULTIDISCIPLINARY APPROACH

Nasra Gathoni
Librarian,
Aga Khan University (Kenya)
Objectives

- describe the multidisciplinary approach to the development and implementation of information literacy for postgraduate medical students at the Aga Khan University, Kenya.
- Describe the course objectives and structure.
Information Literacy

The 21st century has seen the expansion of information technologies which have transformed the manner in which information is stored, accessed, managed, conveyed and retrieved (Philadelphia University, 2007).
Information Literacy

Information Literacy is not just teaching students how to use the library but to develop 21st century information and technology competencies and the skills for lifelong learning. Information literacy (IL) is the “ability to recognize when information is needed and to locate, evaluate and use it effectively” (American Library Association, 2000).
Why Information Literacy?

- rapid technological change
- proliferating information resources
- uncertain quality and expanding quantity of information
- Besides the information overload which the health providers need to deal with, the need for access to evidence based information is also a challenge
Why Information Literacy?

- IT competence
- Identifying variety of resources and their usefulness;
- understand how to search databases using a structured approach;
- comprehend methods used for storing and managing information
To achieve a comprehensive information literacy course, a multidisciplinary approach was adopted. This involved developing a 20 hour course that was to take place in the first quarter of 1st year and to encompass the following sections: Computer skills; information retrieval; and Reference Management (Endnote).

The different sections were respectively handled by the IT trainer, librarian and the research coordinator.

Clear objectives were developed to guide each section of the module.
Course Objectives

- Apply the skills of computer technology in medical literature search, medical record keeping, and retrieval.
- Apply computer techniques in searching for information.
- Use computer technology to store and process research data.
Course Structure

- ICT
- Information Retrieval (IR)
- Endnote Reference Management Software
This course is a broad introduction to the use of computers as tools for creativity, communications and organizing information.

The assumption was: the students do not have any previous computer experience, but even for those students who are already advanced computer users they will find activities to challenge them.

In addition to learning the technical fundamentals of computer use, the course is intended to build their skills in researching information and using technology to help them learn on their own and pass their new skills on to others.
ICT Course Outline

- Identify the various parts of a computer system and what each does;
- Identify major software applications packages and what they do i.e. MsWord, PowerPoint, Excel, Access
- Describe what capabilities Internet has, what a browser does, and be able to perform navigation over the worldwide web;
- Perform the different Internet search methodologies
- Perform email tasks such as sending, receiving, and managing electronic mail;
Information Retrieval

Objectives:

- Ensure effective and efficient information retrieval
- Create awareness of available information resources
- Encourage / promote use of Evidence Based Resources
Information Retrieval (IR)

- Develop information literacy
  - Qualities of an information literate person
    - Recognition that information is required
    - Knows where to find information
    - Knows how that information is organized
    - Knows how to retrieve
    - Will apply it for effective outcome.
IR Course Outline

Unit I
- Introduction
- Searching (Manual)
  - Books / Journals
- Online searching
  - Search engines and directories
    - Definitions / Differences
- Search techniques
- Databases

Unit II
Advanced search – Hands on
- HINARI
- Medline
- Cochrane
- Others- AKU Intranet, Library Portal, Library OPAC
Endnote

- Endnote is one of the many reference management softwares available in the market

- These section combines a hands-on introduction to the EndNote program and the creation of bibliographies in documents with practical tips and techniques.
Endnote Course Outline

- Familiarity with the basics of the EndNote program
- Ability to work with EndNote and Microsoft Word to create bibliographies
- Ability to download references from electronic journal databases into EndNote
- Ability to effectively use the Cite While You Write (CWYW) EndNote feature
## Schedule

<table>
<thead>
<tr>
<th></th>
<th>WEEK ONE</th>
<th></th>
<th>WEEK TWO</th>
<th></th>
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<tr>
<td></td>
<td>MON</td>
<td>TUE</td>
<td>WED</td>
<td>THU</td>
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<td></td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
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</tbody>
</table>

**GROUP A**

- **I-Retrieval Theory**
  - Manual search
  - Online search
  - Search techniques
  - Search strategies
  - 4–5pm = 1hr

- **I-Retrieval Hands-on**
  - HINARI MEDLINE
  - 4–5pm = 1hr

- **F E R E D**

- **I-Retrieval Hands-on**
  - Cochrane AKU Intranet Portal
  - Evaluation
  - 4–5pm = 1hr

- **ICT**
  - Introduction
  - Ms Word
  - 4–5pm = 1hr

- **F E R E D**

- **Endnote**
  - Introduction
  - Creating a library
  - CWYW
  - 4–5pm = 1hr

**GROUP B**

- **ICT**
  - Introduction
  - Ms Word
  - 4–5pm = 1hr

- **ICT**
  - Ms Excel
  - Ms PPT
  - 4–5pm = 1hr

- **ICT**
  - Ms Access
  - Internet/WWW
  - 4–5pm = 1hr

- **Endnote**
  - Introduction
  - Creating a library
  - CWYW
  - 4–5pm = 1hr

- **I-Retrieval Theory**
  - Manual search
  - Online search
  - Search techniques
  - Search strategies
  - 4–5pm = 1hr

- **I-Retrieval Hands-on**
  - HINARI MEDLINE
  - 4–5pm = 1hr

- **F E R E D**

- **I-Retrieval Hands-on**
  - Cochrane AKU Intranet Portal
  - Evaluation
  - 4–5pm = 1hr

**AHILA12 Congress**  
**October 11-15, 2010**  
**Ouagadougou, Burkina Faso**
Challenges during the implementation

- Number of computers
- Allocated time (mainly in the evening)
- Time limitation ensure adequate coverage of topics in the allocated time
Evaluation feedback

The evaluation feedback is **limited** to the Information retrieval section.

- At the end of the IR course an evaluation questionnaire was given to all the residents to complete.
- The questionnaire used both closed and open ended questions.
- The closed ended questions were in the form of intensity questions used to measure the strength of the respondents feeling or attitude on a particular topic/statement.
- The questionnaire applied the likert scale using questions in the form of statements and the respondents were to choose one of the several degrees provided about each statement. The degree ranged from strong approval to strong disapproval.
## Evaluation Feedback

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>No Response</th>
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<tr>
<td>1</td>
<td>The session was useful / relevant to my needs</td>
<td>11</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>-</td>
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<tr>
<td>2</td>
<td>The time allocated was adequate</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>The session was well structured</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>-</td>
<td>-</td>
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<tr>
<td>4</td>
<td>The session was pitched at the right level</td>
<td>6</td>
<td>10</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>The facilities provided were good</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>The support material was clear</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>The support material was useful / relevant</td>
<td>11</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>The session improved my knowledge of literature searching</td>
<td>12</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The session improved my database searching skills</td>
<td>9</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>I feel more confident about my ability to carry out a literature search in the future</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Overall the session was worthwhile</td>
<td>11</td>
<td>6</td>
<td></td>
<td></td>
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</tbody>
</table>
Evaluation

Response to the open ended question:
What did you find most useful about the course?

- How to retrieve information based on the references
- Introduction to Medline as a database
- Improved Pubmed / Medline searching
- Searching the medical databases and getting the relevant information without wasting time
- Extend to which Medline can be manipulated
- Useful for research
- Being able to search for journals / relevant information
- Hands on approach
- Very useful in demystifying the concept of search engines
- Gave a template/map to assist in retrieving online information
- “I liked the way the class was kept together in doing the exercises therefore allowing us to learn from each other through different mistakes made and how to go about handling them. This should be encouraged”
- Ability to limit hits to most relevant
- The contents and exercises
- Improving database searching skills
- Clarification of search engines and databases
Response to open ended question:

*Do you have any further comments about the course?*

- Online tutorial would be useful
- Very relevant although time allocated was short and inadequate for proper integration of principles
Today information literacy is considered a major focus for librarians particularly those in the academic environment. Librarians should however not teach information literacy in isolation.

A multidisciplinary approach to information literacy ensures that the full spectrum of information, communication and technology is achieved.
Conclusion

- This approach also ensured that the objectives of the ICT course were realised as the 3 departments involved brought in the appropriate expertise.
- This approach has been well received by the medical students at the Aga Khan University.
Merci Beaucoup

Thank you