Health Sciences Library & Information Research:
What Can We Learn From It?

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Overview

- Background on EBLIP evidence summaries

- Objective & Methods

- Results

- Limitations

- Conclusions

- Implications

**Evidence Based
Library and Information Practice**

- Open access, non-profit

- Peer-reviewed

- Published quarterly since 2006

- Open Journal Systems (University of Alberta)

- International audience

- ~3000 registered readers

Evidence Based Practice

Assess

Ask

Apply

Acquire
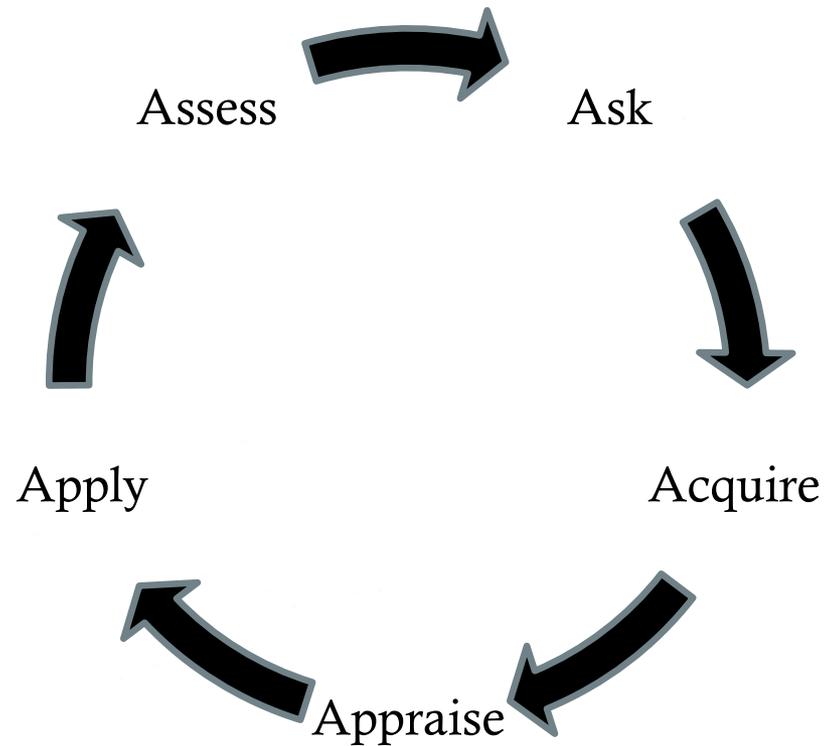
Appraise

Evidence Summaries

Structured abstract

objective – design – setting – subjects – method – main results – conclusion

Commentary

- 300-400 words

- appraisal of validity, reliability, applicability

- significance, implications for practice

Evidence Based Library and Information Practice

Evidence Summary

Undergraduate Students Perceive Reference Encounters to be Teaching and Learning Activities

A Review of:
Gremmels, G. S., and K. S. Lehmann. "Assessment of Student Learning from Reference Service."
College & Research Libraries 68.6 (2007): 488-501.

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Objectives

Examine methodological strengths and weaknesses of research relevant in health sciences library and information practice, as reported in the commentary section of published evidence summaries.

 Kloda, Koufogiannakis & Mallan

Design

Content analysis.

Setting

LIS literature, as represented in the journal, *Evidence Based Library and Information Practice (EBLIP)*.

Subjects

Commentaries of 38 evidence summaries of research in health sciences librarianship published in *EBLIP* between 2006 and 2010.

Method

- Data extraction form

- Pre-testing

- Emerging categories

- Each commentary analyzed by 2 researchers independently; discrepancies resolved by third

Main Results

- General attributes (domain, setting, source, length)

- Validity

- Reliability

- Applicability

- Other findings of note

Domain

Education	7
Collections	8
Information storage & retrieval	17
Reference	9
Management	2
Professional issues	0

Publications

- BMC Medical Research Methodology
- BMJ
- Canadian Journal of Information and Library Science
- Government Information Quarterly
- Health Information & Libraries Journal (5)
- Implementation Science
- International Journal for Education Integrity
- JAMIA (5)

- JMLA (12)
- Journal of Consumer Health on the Internet
- JASIST (2)
- Library and Information Science Research (2)
- Library Collections, Acquisitions, & Technical Services
- Medical Reference Services Quarterly (2)
- Partnership: the Canadian Journal of Library and Information Practice
- PLoS ONE

Length of Commentaries

Word Count	Frequencies	
200-299	1	
300-399*	4	
400-499	14	Mean = 562 words
500-599	5	
600-699	6	
700-799	5	
800-899	1	
900-999	1	
1000-1099	1	

Topics Covered in Original Studies

Point of care information impact	9
Information resources impact or satisfaction	9
Search strategy validation	7
Information needs	5
Others (in-person reference, instruction, journal cancellation)	8

Validity

Focused issue/question (n=17)

Conflict of interest (n=5)

Appropriate and replicable method (n=44)

Population and representative sample (n=35)

Validated instrument (n = 14)

[appropriateness of method]

… one wonders if there are other variables in the studies that may have also had an impact on the study results.
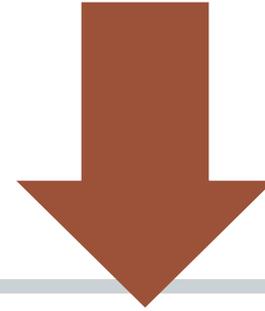
[population and representative sample]

Participants were randomly contacted but it is unclear how randomization was done or whether there was a self-selection bias in the type of respondent who agreed to participate (response rates were not provided).

[focused question]

The aims of the study were clear: …

Reliability

Results clearly explained (n=14)

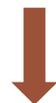Response rate (n=11)

Useful analysis (n=17)

Appropriate analysis (n=18)

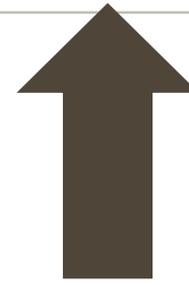Results address research questions (n=4)

Limitations (n=27)

Conclusions based on actual results (n=18)

[appropriate analysis]

As the authors do not include their power calculations, it is difficult to tell what impact the lower number of actual questions would have on the statistical significance of the findings.

Applicability

Implications reported in original study (n=25)

Applicability to other populations (n=19)

More information required (n=15)

[applicability]

… the ideas expressed here could be used to guide and phrase discussion and policy …

[applicability]

Despite its weaknesses, this study will interest reference and instructional librarians who seek to understand how scientists search PubMed. The appendix includes a detailed list of errors made by participants during their searches, which may suggest concepts or features that should be stressed during a PubMed training session.

Other Findings of Note

- Commentary length / categories coded

- Situated research in wider setting

- Significance of research

- Literature review (2+ / 2-)

- Ethics (2-)

- Methods literature/critical appraisal tool (8)

Limitations

- Small set of commentaries

- Writers have varying styles of writing, appraisal experience

- Bias of researchers

Conclusions

- Aspects of **validity** and **reliability** in studies that were critically appraised in *EBLIP* were more often noted as **weaknesses** of the study. Whether this was due to general poor study design or the focus of the writer in trying to point out faults rather than positives, is unknown.

- Despite the criticisms of validity and reliability, there was a lot of positive discussion of the **applicability** of the original research.

- Results are consistent with previous research on wider group of evidence summaries.

Implications for Practice

- Consider aspects of validity, reliability and applicability when you are developing a research study.

- Think critically when reading a research article – regardless of where it was published, was it well done and can you apply its findings to your own environment?

- Improvements to *EBLIP* evidence summaries: content/structure of the commentaries.