



PRIFYSGOL
BANGOR
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Applying Systematic Review methodology from Health to other Science disciplines

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Systematic Reviews in Healthcare/Medical Sciences

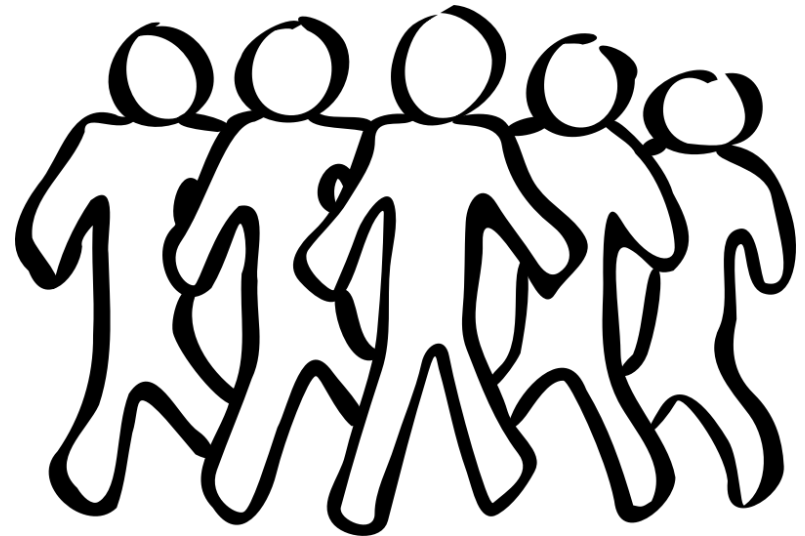
- Aiming to identify all information relevant to a topic
- Methods developed over more than two decades
- The foundation of evidence-based practice
- Evidence hierarchies
- Evidence to policy
- Universally agreed standards and guidelines



Supporting SRs in Healthcare/Medical Sciences

Beverley, Booth & Bath (2003): Ten roles that Information Professionals play in the systematic review process:

- project leader
- project manager
- literature searcher
- reference manager
- document supplier
- critical appraiser
- data extractor
- data synthesiser
- report writer
- disseminator



Systematic Reviews in other Sciences

- Applying the techniques developed in medicine
- And looking at Education, Social Sciences, Business and Information Science

Bangor Evidence Synthesis Hub <http://besh.bangor.ac.uk/>

Transferring SR techniques to other Sciences

- Differences in ways information is published, recorded, reported
- Search functionality of databases (and downloading functionality)
- No one database (like PubMed)
- No subject headings
- No register of studies underway (like clinical trials database)
- Sparse expertise available to critically review SR protocols
- Wider community not used to engaging
- Few existing SRs to base new reviews upon
- No central indexes of SRs in other disciplines

SRs in Ecology and Conservation

[Centre for Evidence Based Conservation](#)

[Collaboration for Environmental Evidence](#)

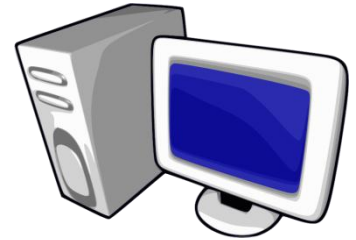


Bayliss & Beyer (2014):

- Nature of ecological information
- Articles are often incompletely reported or lack data
- No reporting standards (PRISMA, CONSORT etc. in Medicine)
- Biases affect the publication of ecological data
- Much data held by practitioner organisations: grey literature
- Nomenclature/vocabulary evolving

“The current situation in ecology is similar to that of medicine several generations ago”

SRs in Software Engineering



Kitchenham guidelines (2004)

Brereton et al. (2007):

- reviews are not part of the computing research culture
- Current search engines are not designed to support SLRs
- Poor Abstracts, keywords not consistent between databases

Staples & Miazi (2007):

- Had to drop a research question: insufficient literature
- SR papers longer than accepted by many SE publication outlets
- Large effort, take considerable calendar time, many iterations

da Silva et al (2011):

- “The software engineering research community is starting to adopt SLRs consistently as a research method”

What does this mean for Academic Support Librarians?

- Opportunities?
- Staffing?
- Training?
- Developing the methods?

“It may be necessary to budget for the use of external information retrieval specialists....”

“If you are carrying out systematic searches for the first time, you should contact an information specialist or librarian for help with designing your search strategy and, if necessary, with using reference management software”

Examples of Enquiries in Bangor

- Enquiries about coverage of specific Databases
- Advanced use of Reference Management Tools



Examples of Enquiries in Bangor

- Scoping: can we deliver this review?
- Guidance for others carrying out reviews



Developing the methods

- Body of evidence from SRs already completed
- New searchers searching: challenging and developing the methods used in Medicine
- Grey Literature searching



Training offer

- CEE training for researchers, policy-makers and practitioners
<http://www.environmentalevidence.org/training-workshops>
- Possibility to extend training to subject librarians and to information professionals working with research groups in academic institutions, in charities or in professional bodies

Quiz!

Smart Device?

www.socrative.com

or download the free Socrative app

Student login

Room number =

Quiz!

1. Have an understanding of what Systematic Reviews are all about?
2. Was aware of increasing interest in systematic reviews in other areas of Science
3. Feel confident in supporting researchers carrying out Systematic Reviews
4. Have experience supporting researchers with Systematic reviews in disciplines other than Medical/Healthcare Science
5. Would be interested in principle in a training session

References

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