Universität Hamburg
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Danske Fag-, Forsknings-
og Uddannelsesbiblioteker

FORA | NEFUS

7 STEPS to a COMPREHENSIVE LITERATURE REVIEW   On   QB 300 O59 81.753   SAGE

AN INTRODUCTION TO SYSTEMATIC REVIEWS   GOUGH · OI   QB 300 G692 82.000

FINK   CONDUCTING RESEARCH LITERATURE REVIEWS   QB 300 F499 85.309

SYSTEMATIC APPROACHES TO A SUCCESSFUL LITERATURE REVIEW   BOOTH · SUTTON · PAPAI   QB 300 B725 80.991   SAGE

© Sabine Rauchmann

Dr. phil. Sabine Rauchmann, M.Sc.

A business librarian's perspective on immersing into the field of SLR in business research: a bumpy road or a smooth ride?

Agenda

1. Adopting SLR in business studies: Immersing into the field
2. Adopting SLR in business studies: Practice at Universität Hamburg
3. Differences between medicine and business studies
4. Preparing and educating ourselves: Dimensions
5. Preparing and educating ourselves: Your skill development plan
6. Conclusion & Discussion

1 Adopting SLR in business studies: Immersing into the field

1.1 Waking up

August 2021

Liebes Schulungsteam,

ich möchte gern für meine selbstorganisierte Studiengruppe den folgenden Termin buchen:

Standort: Fachbibliothek Wirtschaftswissenschaften

Seminar: Ich organisieren dieses Seminar für meine Kolleginnen und Kollegen (Promovierende, Postdocs und Profs.) und mich (Promovierende am Lehrstuhl für Organisation und Unternehmensführung), mit denen ich in einem Projekt arbeite. Das Projekt ist von der DFG gefördert und untersucht den „multiplen Wettbewerb im Hochschulsystem". Insgesamt werden 8 Teilprojekte durchgeführt, in denen unterschiedliche Aspekte des multiplen Wettbewerbs im Hochschulsystem erforscht werden. In „meinem" Teilprojekt untersuche ich beispielsweise anhand eine qualitativen Metaanalyse, die „wettbewerbliche Steuerung und Konfiguration der Hochschulgovernance". Unter diesem Link (Projekte (uni-kassel.de)) finden Sie weitere Informationen zum DFG-Projekt.

Anzahl Teilnehmer: Aktuell möchten Frau Prof. Frost und ich an Ihrem Seminar teilnehmen und haben die zweite Augusthälfte als Zeitraum anvisiert. Sobald ich mit Ihnen einen Termin abgesprochen habe, werde ich diesen den anderen DFG-Projektteilnehmenden mitteilen und das Seminar bewerben, damit wir mindestens 5 Teilnehmende werden.

Terminwunsch: ein Termin in der 2.ten Augusthäfte wäre optimal, z.B. am Montag, den 16.08.21 um 10 Uhr
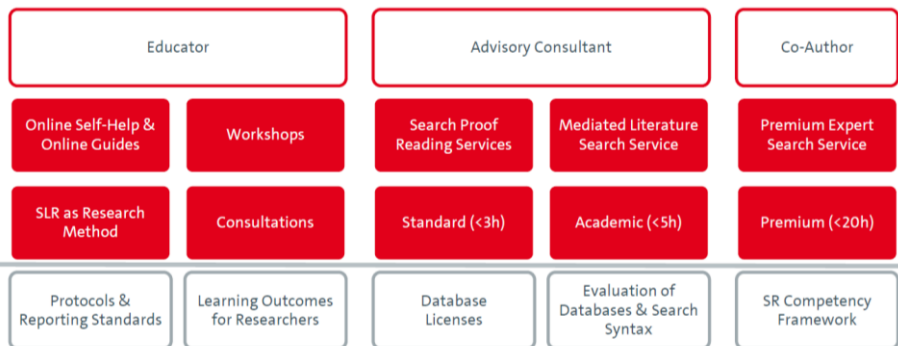
1.2 Asking around

- ÄZB (Central Medical Library)
  - PRESS, Yale MeSH Analyzer, Cochrane Library
  - Working in a team of librarians to facilitate exchange and updates
- Fachreferententagung Wirtschaftswissenschaften (Bremen)
  Lightening Talk: SLR in business studies – best practices?
  - Standards for SLR in Business Studies and Economics?
  - Jointly develop a corpus of knowledge
  - Cooperation with medical libraries
  - Linking to other areas, i.e. research data

1.3 Collecting

May 2022 INCONECSS
Support Services for Systematic Literature Reviews in Economic and Business Studies: How Can Business Librarians Cooperate
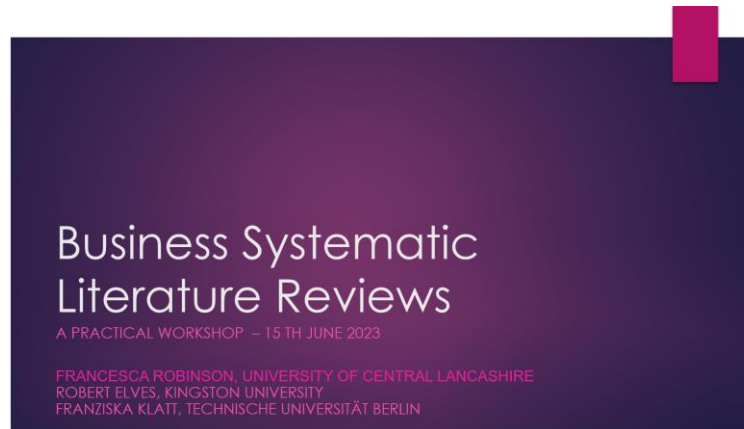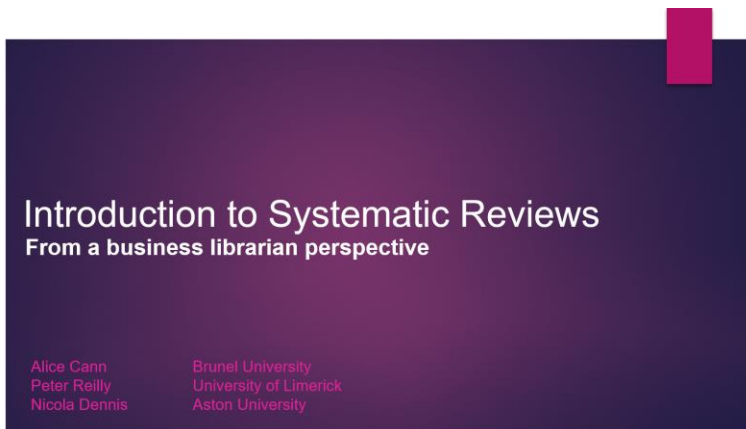
SLR Service Model Framework

Educator		Advisory Consultant		Co-Author
Online Self-Help & Online Guides	Workshops	Search Proof Reading Services	Mediated Literature Search Service	Premium Expert Search Service
SLR as Research Method	Consultations	Standard (<3h)	Academic (<5h)	Premium (<20h)
Protocols & Reporting Standards	Learning Outcomes for Researchers	Database Licenses	Evaluation of Databases & Search Syntax	SR Competency Framework

Framework for Collaboration

Management [Strategic]	Team [Hands-on]
Community of Practice International & Online	
Helping | Best practice | Knowledge stewarding | Innovation	
Supporting tools [Documentation]	Process [Training]

1.4 Getting lucky

May/June 2023
Workshop > BLA BSLR Working Group

Introduction to Systematic Reviews
From a business librarian perspective

Alice Cann   Brunel University
Peter Reilly   University of Limerick
Nicola Dennis   Aston University

Business Systematic Literature Reviews
A PRACTICAL WORKSHOP – 15 TH JUNE 2023

FRANCESCA ROBINSON, UNIVERSITY OF CENTRAL LANCASHIRE
ROBERT ELVES, KINGSTON UNIVERSITY
FRANZISKA KLATT, TECHNISCHE UNIVERSITÄT BERLIN

1.5 Catching up

- Consulting
  - 1 to 3 requests for support for SLRs per year
  - Request for SLR > traditional literature review done in a systematic way?
  - Feedback: helped to
    - create the search string in a systematic way
    - determine which resources to use (databases, repositories)
- Organizing: high level of competence needed for SLR vs. day-to-day work

→ Status quo of SLR at Universität Hamburg (WISO, BWL)?
→ Best resources for preparing and educating ourselves?

2 Adopting SLR in business studies: Practice at Universität Hamburg

2.1 Search in SSCI

- Search in Web of Science = 43 Articles
  - University of Hamburg (Affiliation) + "systematic review*" OR "meta-analysis*" OR "SLR" OR "systematic literature review*" (All Fields) + 3: WC=("Business" OR "Business Finance" OR "Economics" OR "Management" OR "Operations Research Management Science")
- 27 articles can be linked to the Faculties BWL and WISO
  - 4 articles are meta-analysis of data-sets
  - 1x narrative review,
  - 2x SLR is used in a different meaning, 2x looks more like a scoping review
  - 4x meta-analysis does not describe how they get to the articles
- 14 articles

2.2 Distribution / Chair

No. of Articles

SLR is not a common research method > half of the chairs applied this method only once!

2.3 PRISMA

Use of PRISMA

5 — Yes
2 — Yes, but adapted
7 — No
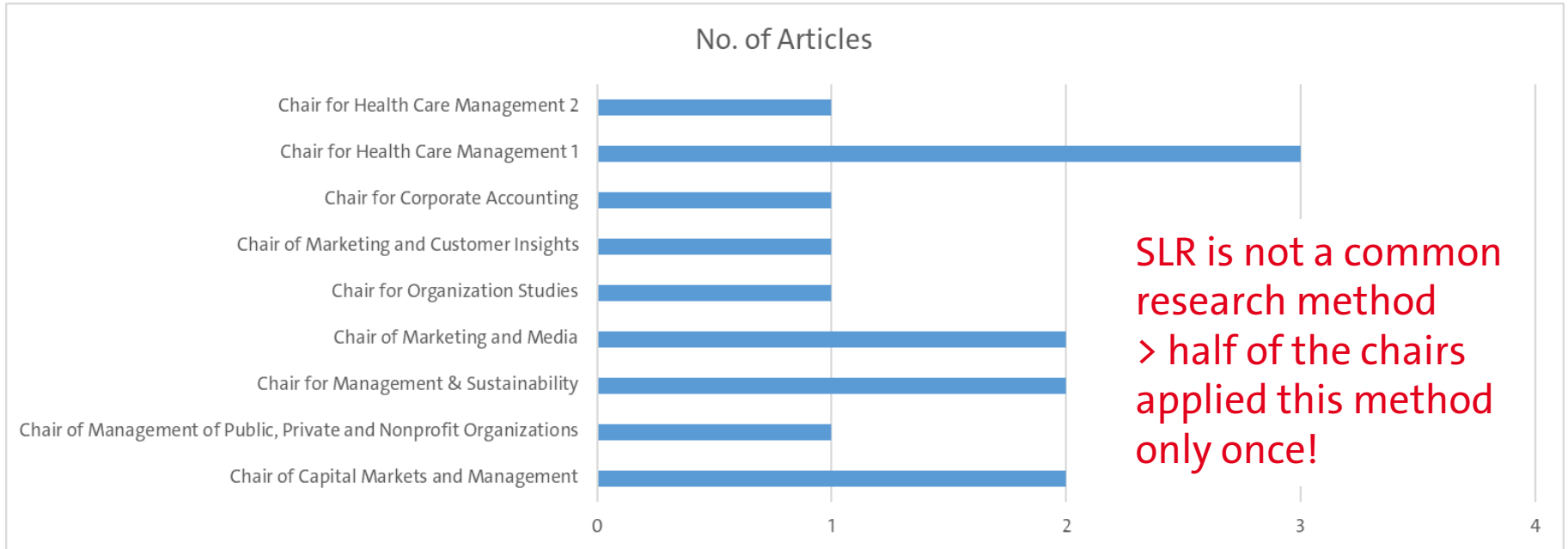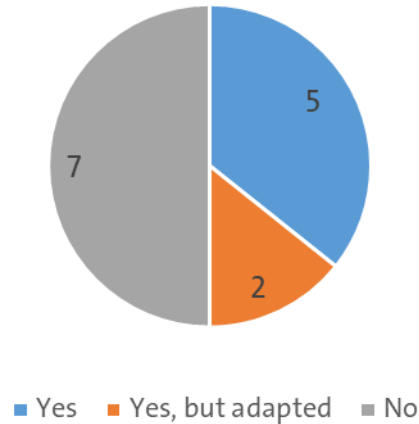
PRISMA is not predominant in business and economic studies.

2.4 PRISMA and Journal Title

SLR + PRISMA	SLR + no PRISMA
Applied Health Economics and Health Policy (1) Entrepreneurship Theory and Practice (1) Journal of Philanthropy and Marketing (1) PharmacoEconomics (3) Public Management Review (1)	Corporate Social Responsibility and Environmental Management (1) International Journal of Research in Marketing (1) Journal of Marketing Research (1) Journal of Retailing and Consumer Services (1) Organization & Environment (1) Sustainability Accounting, Management and Policy Journal (2)

Reviews are published in a variety of journals.

2.5 Databases used

Wide ranges of databases, no pattern recognizable

Business
Database
ABI/Inform
BSC
Grey Literature
Econis / Econbiz
MSI Working Papers / Marketing Science Institute
Publisher
Academy of Management journals
Emerald
Economics
Database
EconLit
Grey Literature
NBER
RePEc

General
Database
Scopus
WoS
Grey Literature
UMI Dissertation Abstracts
Internet
GoogleScholar
ResearchGate
Publisher
JSTOR
Oxford Journals
Sage
ScienceDirect
SpringerLink
Wiley

Medicine
Database
Cochrane Library
Database of Abstracts of Reviews of Effects (DARE)
Embase
Health Technology Assessment (HTA)
Medline / PubMed
National Health Service Economic Evaluation Database (NHS EED)
University of York Centre for Reviews and Dissemination Database
Psychology
Database
PsycInfo
Social Sciences
Grey Literature
SSRN

2.5 Search strings

- Search terms, but search string or search history is frequently missing
- Medline
  ((((chronic AND (lymphocytic OR lymphoblastic OR lymphoid) AND (leukemia OR leukaemia) OR CLL) AND (econom* OR burden OR cost OR "cost of illness" OR COI OR "burden of disease" OR "non monetary" OR "patient utility" OR "patient benefit" OR QALY OR DALY OR "quality of life" OR QoL))) AND (english[Language] OR german[Language]))

Quite comprehensive search strings for complex research questions.

3 Differences between medicine and business studies

3.1 Different: Research approach (1)

Table 1. Differences between medical research and management research

	Medicine	Management
Nature of the discipline	Convergent	Divergent.
Research culture	Subjected to rigorous scientific evaluation.	Split between positivist and phenomenological perspectives.
Research questions	High consensus over research questions.	Low consensus over research questions.
Interventions	Can be measured through experiments.	Experimentation may or may not be feasible.
Research designs	Based upon a hierarchy of evidence.	Triangulation is recommended.
Theory	Concerned with what works–did the intervention offer overall benefits.	Concerned with why something works or does not work and the context in which this occurs.
Aims of policy	Generally reducing illness and death, and improving health.	Multiple and competing and the balance between them may change over time.
Weight of inputs into policy	Scientific evidence.	Many extraneous factors.
Methods	Predominantly quantitative.	Quantitative and qualitative.
Literature reviews	Systematic review and meta-analysis.	Largely narrative reviews.
The need for a review	Reviews of effectiveness are used by clinical practitioners.	To develop a research question and inform empirical research practice.

Tranfield, D. et al. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207–222. https://doi.org/10.1111/1467-8551.00375

3.1 Different: Research Approach (2)

	subject area.	
Review protocol	A plan prior to the review states the criterion for including and excluding studies, the search strategy, description of the methods to be used, coding strategies and the statistical procedures to the employed. Protocols are made available by international bodies to enhance networking the exchange of knowledge.	Level of formality and standardisation in designing/adopting protocols is usually low. Unacceptable to 'tightly' plan literature review, as this may inhibit the researchers capacity to explore, discover and develop ideas.
Identifying research	A comprehensive, structured search is conducted using predetermined keywords and search strings.	Identifying a field/sub- fields of study generally occurs through informal consultation. Implicit idiosyncratic methods of data collection are used.
Selection of studies	Inclusion and exclusion criteria are expressed in the protocol to ensure a review of the best available evidence. Draw upon 'raw data' from 'whole studies' for analysis to create a study in its own right.	Based on studies that appear relevant or interesting. Researchers bias disables critical appraisal. Decisions regarding choice are not recorded precluding any audit trails 'Raw data' is often not available in academic articles, which usually represent 'partial studies'. Precise inclusion/exclusion criteria are often not formally agreed, applied recorded or monitored.

Tranfield, D. et al. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207–222. https://doi.org/10.1111/1467-8551.00375

3.2 Different: Studies

- "Management research is a relatively young field, far less well developed in terms of agenda and question formulation than much of medical science." (Tranfield et al., 2003, 212)
  - Studies in the field rarely address identical problems, share a research agenda or ask the same questions
- Studies are often
  - narrative and qualitative, higher level of subjectivity associated with the synthesis process
  - multidisciplinary with many intersections with economics, psychology, sociology, education, public administration etc. (Liu, 2021)

3.3 Different: Databases

- Search strategies are more challenging because
  - Broad, unstructured topics with 2+ foci
  - controlled vocabularies are much less controlled
  - content in business databases is changing
  - databases mostly require a license

Liu, G. (2021). Systematic reviews in business and management: are business librarians ready? Academic BRASS, 16(1), 1-8. https://digitalcommons.wcupa.edu/lib_facpub/23

3.4 Different: Guides by researchers vs. PRISMA

Article	Subject Area	Notes
Adams, Smart, & Huff, 2017	Management and organizational studies	International Journal of Management Reviews • Grey Literature
Clark et al., 2021	Management and business	Management Review Quarterly
Fisch & Block, 2018	Management and business	Management Review Quarterly
Palmatier et al., 2018	Marketing	Journal of the Academy of Marketing Science
Torraco, 2005	Human resources	Human Resource Development Review • Defines the integrative literature review • Provides guidelines and examples for integrative literature reviews • Discusses contributions of a integrative literature review
Tranfield et al., 2003	Management	British Journal of Management • Compares management and healthcare research • Highlights the challenges of conducting a SR in management research • Provides guidelines for conducting a SR in management Research

(Snyder, 2019)

3.5 Same: Errors in SLR

- Protocols and standards
- Databases vs. publishers
- Search strings / search history
- Replicable / reproducable?

Briscoe, S. (2023). Errors to avoid when searching for studies for systematic reviews: A guide for nurse researchers. *International Journal of Older People Nursing*, 18, e12533. https://doi.org/10.1111/opn.12533

Errors when using bibliographic databases

Database selection

Error #1: Only searching one bibliographic database

Error #2: Not searching appropriate bibliographic databases

Free-text terms

Error #3: Search terms do not map onto the research question

Error #4: Missing synonyms

Error #5: Lack of spelling variation

Error #6: Spelling errors

Controlled vocabulary

Error #7: Not using controlled vocabulary

Error #8: Not using the explode function

Error #9: Not translating controlled vocabulary

Error #10: Free-text and controlled vocabulary in same line

Structural issues

Error #11: Incorrect use of Boolean operators

Error #12: Incorrect line combinations

Error #13: Syntax errors

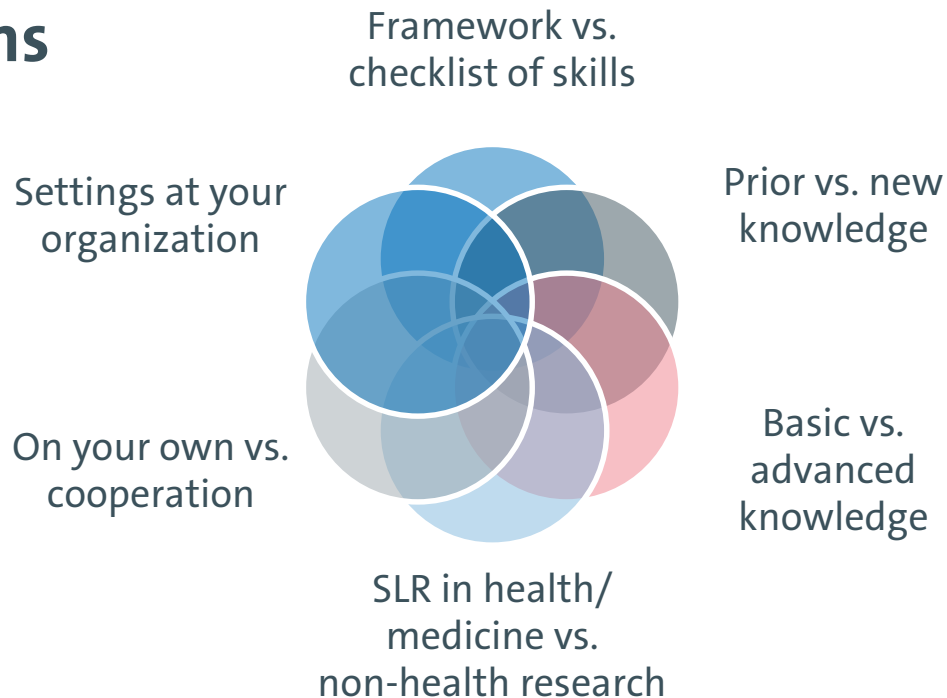**Errors when using supplementary search methods**

Error #14: Failure to use appropriate search methods

Error #15: Free-text and structural errors

Error #16: Dubious criteria for search strategy development

4 Preparing and educating ourselves: Dimensions

4.1 Dimensions

Framework vs.
checklist of skills

Settings at your
organization

Prior vs. new
knowledge

On your own vs.
cooperation

Basic vs.
advanced
knowledge

SLR in health/
medicine vs.
non-health research

4.2 Framework vs. Checklist

Competency	Scope Note
SR foundations	How and why SRs are used in the health sciences and how to effectively find SRs
Process management and communication	Resources and skills involved in SR team communication and effective project management
Research methodology	Ability to comply with & advise teams on SR standards & best practices
Comprehensive searching	Ability to construct and document replicable search strategies in appropriate literature databases and other information resources
Data management	Processes, tools, and skills involved in using data and ensuring data integrity, archiving, and tracking for the SR process
Reporting	Ability to communicate literature search methods and results according to established standards so that they are suitable for publication and are replicable

(Townsend et al., 2017)

4.2 Framework: Research methodology

Competency	Scope Note
Ability to comply with and advise teams on SR standards and best practices	• Matching of research question to an appropriate review type • Core SR methodology and reporting standards, guides, and handbooks • Protocol development, including question refinement, inclusion/exclusion criteria, data management plan, and protocol registration • Searching (see "Comprehensive searching" competency) • Data management (see "Data management" competency) • Critical appraisal of SR quality • Study selection processes, including inter-rater reliability, risk of bias, and critical appraisal

(Townsend et al., 2017)

4.2 Framework: Comprehensive searching

Competency	Scope Note
Ability to construct and document replicable search strategies in appropriate literature databases and other information resources	• Conduct of preliminary searches to confirm the need for an SR • Database selection appropriate to the research question, including grey literature resources • Techniques and strategies for keyword and controlled vocabulary search term generation • Search filters, including validation and sources • Creation of comprehensive search strategies in multiple databases using advanced search techniques • Search strategy validation techniques, including use of sentinel articles • Techniques and tools to save searches, set auto-alerts, and update searches • Transparent and complete documentation procedures for replicable searches

(Townsend et al., 2017)

4.3 Prior vs. new knowledge

- Prior knowledge
  - Databases, repositories in the subject area
  - Search interfaces, searches in the databases
  - Techniques and strategies for keyword and controlled vocabulary search term generation
  - Literature search interview at the reference desk for traditional literature search
- New knowledge
  - Quality of content and vocabularies
  - Transfer search strategy from database to database

4.4 Basic vs. advanced

- Basic
  - Protocols and standards (Cochrane, Campbell Collaboration)
  - PRISMA, PRISMA-S
  - Question Frameworks (PICO)
  - PRESS
- Advanced
  - In-depth knowledge of content quality of databases (resources, descriptors)
  - In-depth knowledge of tools beyond searching
  - Search summary table (Bethel, 2021)
  - New developments (AI, research data management, search history depository)

4.5 SLR in health/medicine vs. non-health research areas

- Each subject has its own challenges (types of studies, search strategies with regards to controlled vocabulary, database licenses)

- SLR as research method > guides from the subject area

- Subject-specific protocols and standards

4.6 On your own vs. cooperation (1)

- Self-paced
  - online training, libguides
  - sitting in on consultations
  - degree program
- Practical experience
  - Search club
  - Peer review of search strategies
  - Meetings to discuss journal articles of interest, lessons learned
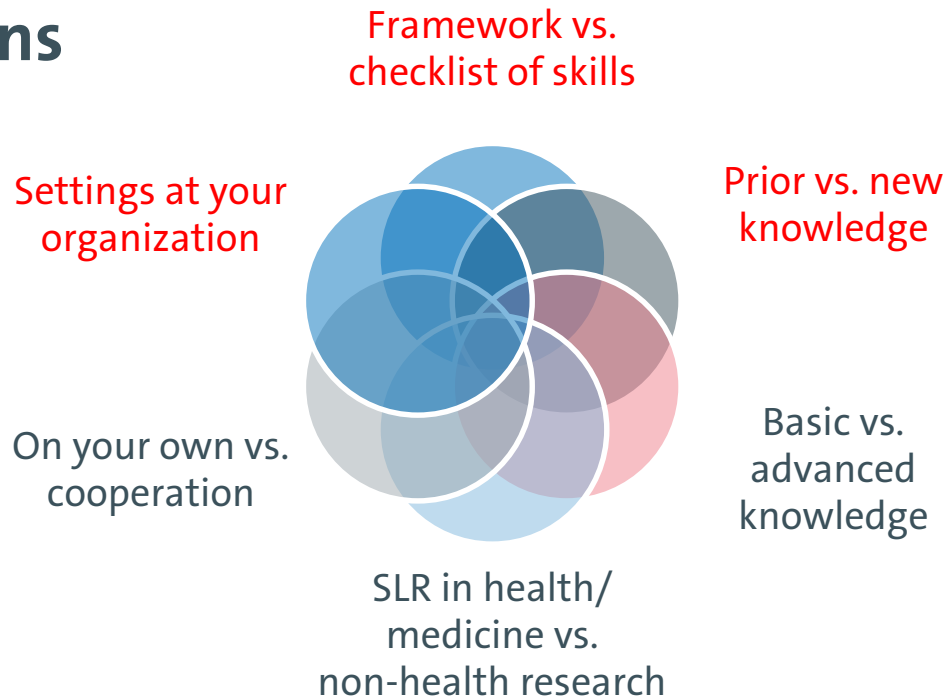 - Co-Authorship
  - Mentor/Mentee

4.6 On your own vs. cooperation (2)

- Knowledge exchange
  - Working groups
    - in the library / campus-wide / interdisciplinary or subject-specific / national / international
    - SLR special interest group with professional associations
  - Conferences, weblogs, twitter

4.7 Settings at your organization

- Number of SLR requests per year
- Who is getting support? (students or faculty)
- Service model:
  - Self help,
  - Support & training,
  - Search proof reading service, Mediated literature searching, Expert consultant service
- Involvement: educator – advisory consultant – co-author?
- Database licenses
- Support by library management

4.8 Dimensions

Framework vs. checklist of skills

Settings at your organization

Prior vs. new knowledge

On your own vs. cooperation

Basic vs. advanced knowledge

SLR in health/ medicine vs. non-health research

5 Preparing and educating ourselves: Your skill development plan (SLR for Business Studies)

5.1 Skill development for SLR in business studies

Basic	Advanced	Expert
▪ Reflecting prior knowledge ▪ General introduction ▪ Subject-specific introduction ▪ SLR as Research Method as seen by the subject area	▪ Guides for librarians by librarians ▪ Handouts and guides: Databases and repositories ▪ Practice ▪ Stay up-to-day	▪ Advance the method ▪ In-depth practice ▪ Exchange and collaboration

5.2 Basic 1: Reflecting prior knowledge

- Prior knowledge
  - Databases, repositories in the subject area
  - Search interfaces, searches in the databases, tutorials for the databases
  - Techniques and strategies for keyword and controlled vocabulary search term generation (concept boxes)
  - Literature search interview at the information desk

5.2 Basic 2: General introductions

- Cochrane / health
  - Training program and online learning
  - Learning modules
- Campbell Collaboration / Systematic reviews in the social sciences
  - What is a systematic review?
  - Training and courses
  - Systematic Reviews and Meta-Analysis — Open & Free
  - Youtube channel: https://www.youtube.com/@collaborationtube
  - Campbell Methods Webinar series
- PRISMA, PRISMA-S (Extension for searching)

5.2 Basic 3: Introduction in SLR in non-health research area

- Evidence Synthesis Institute
  - [Book](link)
  - [Libguide: Systematic reviews and evidence synthesis beyond the health sciences: a training for librarians](link) (2020)
- Campbell Collaboration
  - [Evidence synthesis information retrieval in business and commonalities across disciplines](link)
  - 2017: [Business and Management coordinating group](link)
- List with good SLRs from the subject area

5.2 Basic 4: SLR as Research Method as seen by the subject

- Research culture for the discipline – know specifics of research approaches

Article	Subject Area	Notes
Adams, Smart, & Huff, 2017	Management and organizational studies	International Journal of Management Reviews • Grey Literature
Clark et al., 2021	Management and business	Management Review Quarterly
Fisch & Block, 2018	Management and business	Management Review Quarterly
Palmatier et al., 2018	Marketing	Journal of the Academy of Marketing Science
Torraco, 2005	Human resources	Human Resource Development Review • Defines the integrative literature review • Provides guidelines and examples for integrative literature reviews
Tranfield et al., 2003	Management	British Journal of Management • Compares management and healthcare research • Highlights the challenges of conducting a SR in management research • Provides guidelines for conducting a SR in management research

(Snyder, 2019)

5.3 Advanced 1: Guides for librarians by librarians

- Carrie Price: Systematic Reviews for Librarians
- Whitney Townsend: Systematic Reviews for Search Professionals
- Macquarie University: Non-Health Systematic Reviews
- University of Calgary / Libraries Cultural Resources:
  Systematic reviews and meta-analysis in business/management
- Birmingham City University / Library and Learning Services:
  Systematic reviews for business and management
- Westchester Univ. / University Libraries: Literature review in public administration
- Radboud Univ. / Univ. Library: Business admin. & economics: systematic review
- DBWM: Systematic Literature Review

5.3 Advanced 2: Handouts for Databases

- List of databases and repositories
- How to evaluate quality of content of databases and repositories
  - Business Source, ABI/Inform, Econbiz, Web of Science
- Create search strings and adapt to the database (block building approach, descriptors)
- Checklist for transfering search strategies between databases

5.3 Advanced 3: Practice

- Working groups in the library / campus-wide / interdisciplinary or subject-specific
  - Sitting in on consultations
  - Peer review of search strategies
  - Search clubs
  - Meetings to discuss journal articles of interest, lessons learned
    (i.e. BusLibsinSR (Zarah Premji))
- Apply research results for your own searches:
  - https://whatreviewisrightforyou.knowledgetranslation.net/
  - https://systematicreviewlution.com/

5.3 Advanced 4: Stay up-to-date

- Search for Articles about SRL in PubMed, SSCI > methods
- Follow persons / organizations on Twitter
  - #SystematicReview
  - Alice Cann / https://twitter.com/alicecann
  - Carrie Price / https://twitter.com/carrieprice78
  - Wichor Bramer / https://twitter.com/wichor
  - Lesley Uttley / https://twitter.com/LesleyUttley

5.4 Expert 1: Practice and research

- Advance the method
  - Search summary table (Bethel, 2021)
  - Search history repositories
  - New developments (AI, research data management)
- In-depth practice
  - Write your own SLR
  - Co-authorship
  - Mentor/mentee

5.4 Expert 2: Exchange and collaboration

- Working groups
  - SLR special interest group with professional associations
  - BLA BSLR Working Group
- Community of practice
  - Sharing resources
  - Organizing hands-on training
  - Peer-reviewing search strategies
  - Evaluating protocols for fitting the needs of business studies

5.5 Skill development for SLR in business studies

Basic	Advanced	Expert
▪ Reflecting prior knowledge ▪ General introduction ▪ Subject-specific introduction ▪ SLR as Research Method as seen by the subject area	▪ Guides for librarians by librarians ▪ Handouts and guides: Databases and repositories ▪ Practice ▪ Stay up-to-day	▪ Advance the method ▪ In-depth practice ▪ Exchange and collaboration

+ Settings of the organization
+ Bloom's taxonomy

➡ = training plan for an individual skill profile

6 Conclusion & Discussion

6.1 Conclusion

- Bumpy road **or** smooth ride?
  > **From** a bumpy road **to** a smooth glide
  - Perfectionism
  - Steep learning curve
  - Disappointment (not every SLR stays a SLR)
  - Standards + protocols
  - Lots of materials

6.2 Discussion

- How does the number of requests for SLR support impact the time for educating yourself?

- How can we document the information for one subject area so that it is accessible for everyone?

- What can we use from SLR in health/medicine?
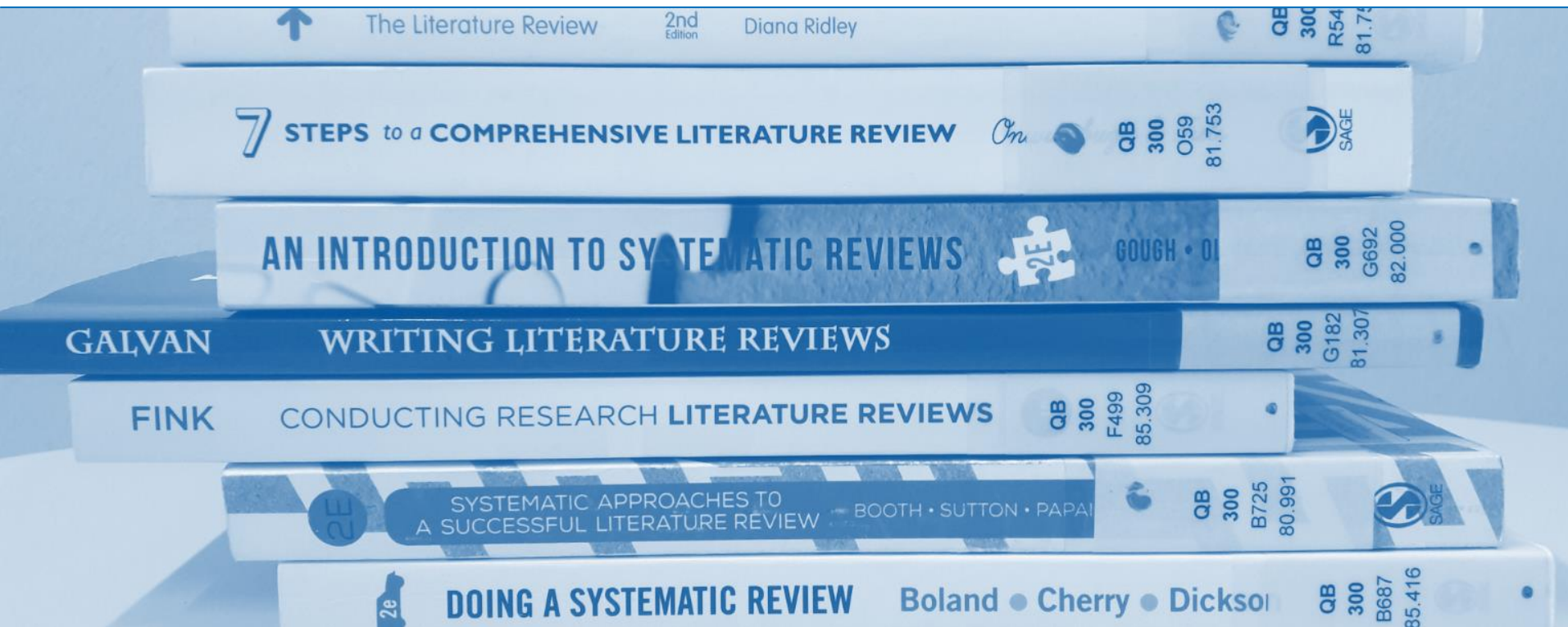
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Townsend, W. A., Anderson, P. F., Ginier, E. C., MacEachern, M. P., Saylor, K. M., Shipman, B. L., Smith, J. E. (2017). A competency framework for librarians involved in systematic reviews. *Journal of the Medical Library Association,* 105(3), 268–275. https://doi.org/10.5195/jmla.2017.189

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207–222. https://doi.org/10.1111/1467-8551.00375.

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