




Graduate Research Advanced Skills Program (GRASP)

Research Proposal Series 5

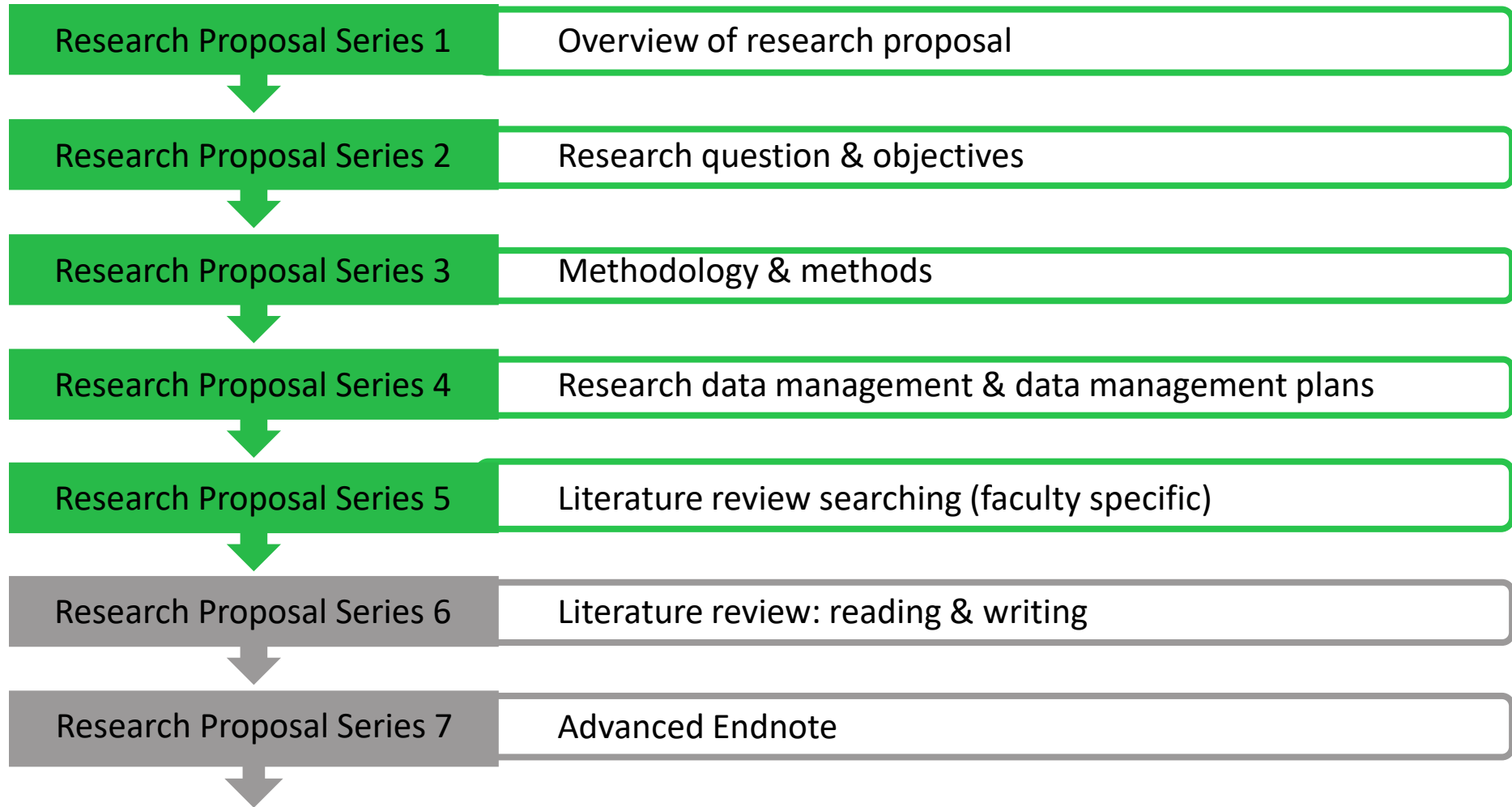
Literature Review – Searching (Health Sciences)

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Curtin University acknowledges the traditional owners of the land on which Curtin Perth is located, the Wadjuk people of the Nyungar Nation; and on our Kalgoorlie campus, the Wongutha people of the North-Eastern Goldfields.

Research Proposal Series





This session will enable you to:

- **Learn** more about the literature review process
- Better **assess** which **databases** will be of most use to you
- **Plan** a database search and consider specific **techniques** to help find **relevant** material
- Find additional **help** and **support**



Literature review

As part of **research proposal for Milestone One** requirements:

- Literature review – demonstrate your knowledge of the relevant literature
 - “make adequate and intelligent reference to other works”
 - “sufficient knowledge of the literature”
- Methods and methodology
 - “methodology and methods suitable for the proposed study”

As a **precursor** to a more involved study or review, such as systematic review

As a **research project in itself** - as a peer-reviewed publication in a journal, or as a report from a research funded project



Planning a literature review

Begin with a clear **research question**, or set of questions

- Consider inclusion/exclusion criteria, limits

Determine **type of information** to include and **sources** to search

- Everything, peer reviewed only, grey literature, etc.

Develop a **search strategy**

- Iterative process

Find full text of articles

Manage and document **search results**



Types of searches

Search type	Purpose	Goal
Lookup	Fact retrieval, question answering, etc.	To identify one or several articles, fill information gap with quick and targeted searches.
Exploratory	General research, literature reviews, etc.	Learn about a concept or body of research, usually via an iterative search process.
Systematic	Systematic reviews, meta-analyses, etc.	Identify all records on a specific topic through an unbiased, transparent, and reproducible search. Achieved via conducting a set of transparent and replicable searches using search strings that have been carefully constructed to balance recall/sensitivity and precision.

Gusenbauer, M. and Haddaway, N.R. (2021), What every researcher should know about searching – clarified concepts, search advice, and an agenda to improve finding in academia. *Res Syn Meth*, 12: 136-147. <https://doi.org/10.1002/jrsm.1457>

Types of databases



- A database is a searchable electronic index of published resources
- Database **content** can include articles and research from journals and newspapers, ebooks, multimedia, standards, statistics, conference papers, theses, datasets, tests & measures...
- Can be **generic** (eg. Proquest) or **discipline specific** (eg. Medline)
- Can also be **full text** or **abstract only**, or a combination of both

Selecting a database



Multidisciplinary

- ProQuest – includes health & medicine
- Informit – Australian material, includes health collection
- Scopus, Web of Science – also good for citation searching

Medicine/health specific

- Medline, Embase, PsycINFO, Global Health – available on the Ovid platform
- CINAHL – nursing & allied health, EBSCO platform

Library Databases list – filter by subject <https://databases.library.curtin.edu.au/>



Research question

Formulate a clear question, or set of questions

- Can use PICO (Patient, Intervention, Comparison, Outcome) framework for quantitative
- Can use PICo (Population, Interest, Context) framework for qualitative

A clear question guides the research process

- Informs the search strategy
- Must be able to be segmented into searchable components
- Can be complex and consist of sub-questions

The question, or aim, may change during the process



Translating the research question

Sample topic

What is the feasibility of using wearable technology to measure screen time in children aged 4 – 10?



Concept grid

What are the major themes or concepts in the topic?

Concept 1	Concept 2	Concept 3
Wearable technology	Screen time	Children



Concept grid

What alternative terms or spellings can you use?

Wearable technology	Screen time	Children
Wearable technology	Screen time	Child
Wearable camera	Television or TV	Toddler
Wearable sensor	Computer	Preschooler
	Ipad	
	Tablet	



Developing the search strategy

Searching is an iterative process

Consider:

- Search operators
- Fields to search
- Search limits
- Include subject headings?

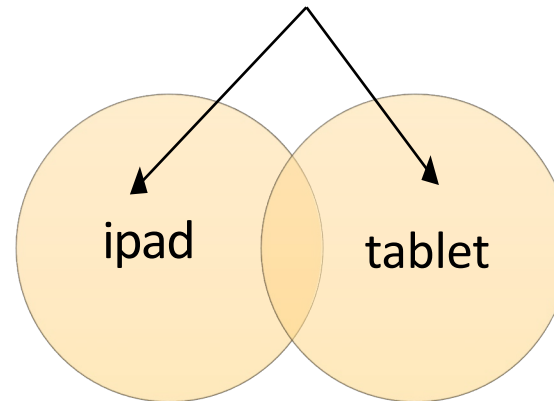


Boolean operators

OR = 'either/or'

Use between *similar terms*
Broadens your search

ipad **OR** tablet





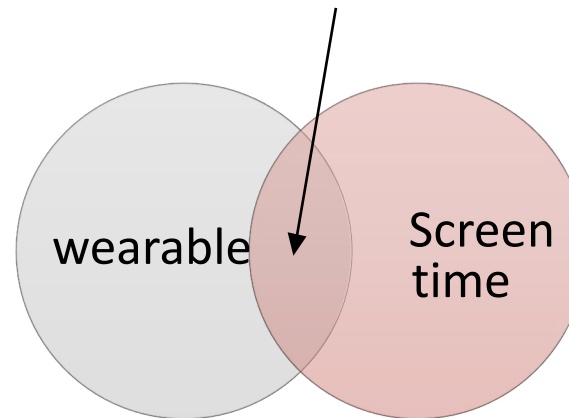
Boolean operators

AND = 'as well as'

Use between **different concepts**

Narrows your search

wearable **AND** screen time





Truncation

child* = child, children, childhood

Wearable technology	Screen time	Children
wearable technology	“screen time”	child*
wearable camera	television* or TV	toddler*
wearable sensor	computer*	preschool*
wearable*	ipad*	“pre school*”
	tablet*	



Additional search tips

Phrase searching

“screen time”

Wildcard (? or #)

immuni?ation = immunisation, immunization

Proximity searching (ADJ or NEAR)

screen* **ADJ3** time



Search limits

Apply any limits at the **end of the search**. Limits might include:

- **Time periods**, eg. last 10 years
- **Language**, eg. English only
- **Publication type**, eg. Clinical trial
- NOTE on limiting to “**Full Text**”

Search strategy



What is the feasibility of using wearable technology to measure screen time in children aged 4 – 10?

wearable*

AND

“screen time” **OR** computer* **OR** television*

AND

child* **OR** toddler*



Proquest

The ProQuest platform hosts a great amount of multidisciplinary content including scholarly and non-scholarly journals, books, multimedia, theses, newspapers and more. **Large full-text content.**

Example keyword search

Advanced Search

Command Line

Thesaurus

Field codes

Search tips

wearable*

AND



"screen time" OR computer* OR television*

AND



child* OR toddler*



Proquest search tips

Search fields:

Anywhere ▼

VS

Anywhere except full text – NOFT ▼

Make use of LIMITS, eg:

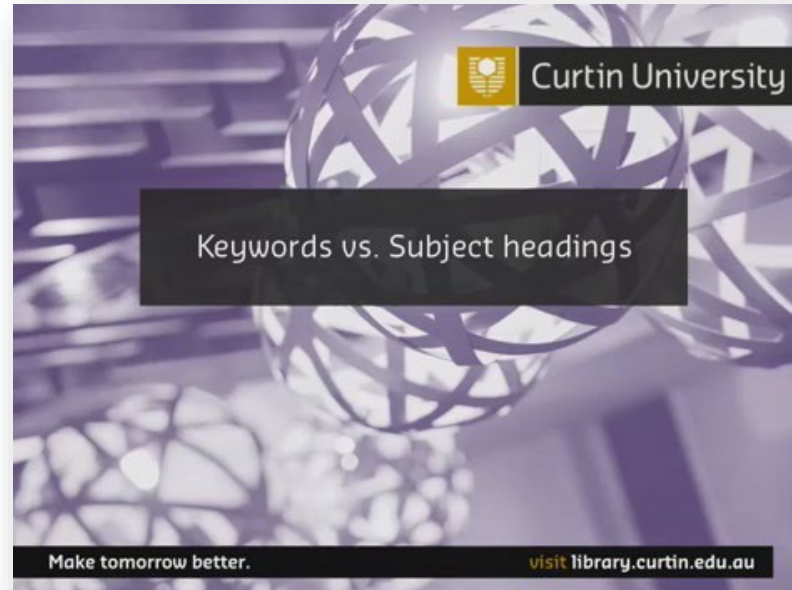
Source type

Include	Exclude	Source type
<input type="checkbox"/>	<input type="checkbox"/>	Scholarly Journals
<input type="checkbox"/>	<input type="checkbox"/>	Newspapers
<input type="checkbox"/>	<input type="checkbox"/>	Wire Feeds
<input type="checkbox"/>	<input type="checkbox"/>	Dissertations & Theses
<input type="checkbox"/>	<input type="checkbox"/>	Trade Journals

Keywords vs Subject Headings



Curtin University



<https://youtu.be/bNIG4qLuhJA> (3.30m)



Medline

Bibliographic database by the U.S. National Library of Medicine containing > 28 million references to journal articles in life sciences with a concentration on biomedicine. **Combination full-text/abstract.**

In Advanced Search, the **default keyword search** is a multi-purpose (mp) search:

# ▲	Searches	Example keyword search
1	(wearable* and ("screen time" or computer* or television*) and (child* or toddler*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	

Medline - MeSH



Medline records are indexed with **Medical Subject Headings (MeSH)**, applied by staff at the NLM.

Unique Identifier: 31122998

Title: **Feasibility of wearable cameras to assess screen time** and **time** spent restrained in children aged 3 **to** 5 years: a study protocol.

Source: BMJ Open. 9(5):e028265, 2019 05 22.

Record Owner: From MEDLINE, a database of the U.S. National Library of Medicine.

Status: MEDLINE

Authors: [Downing_KL](#); [Janssen_X](#); [Reilly_JJ](#)

MeSH Subject Headings: [Child Restraint Systems](#)
[Child, Preschool](#)
[Feasibility Studies](#)
[Humans](#)
[Infant Equipment](#)
[*Restraint, Physical](#)
[*Screen Time](#)
[*Sedentary Behavior](#)
[*Video Recording](#)
[*Wearable Electronic Devices](#)



Medline - MeSH

	Wearable technology	Screen time	Children
<i>Keywords</i>	wearable*	“screen time” television* computer*	child* toddler*
<i>MeSH subject headings</i>	Wearable Electronic Devices/	Screen Time/	Child/ Child, Preschool/



Medline - MeSH

MeSH headings can be included in the strategy for a more comprehensive search:

# ▲	Searches	Example keyword & subject heading search
1	wearable*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	
2	Wearable Electronic Devices/	
3	1 or 2	
4	("screen time" or television* or computer*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	
5	Screen Time/	
6	4 or 5	
7	(child* or toddler*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	
8	Child/ or Child, Preschool/	
9	7 or 8	
10	3 and 6 and 9	

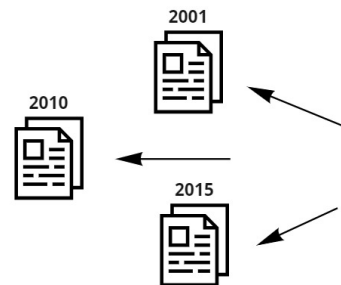


Citation searching

A way of finding relevant research in a field by looking at what an article has referenced, and also who has since used that article as a reference.

Many databases allow you to follow citations, including **Scopus**, **Web of Science**, and **Google Scholar**.

Backward citation searching
Older publications



Forward citation searching
Newer publications

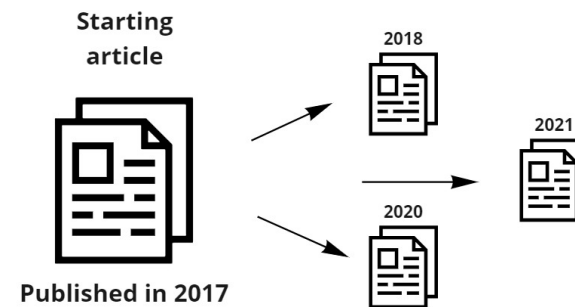


Image: <https://guides.library.unisa.edu.au/GreyLiterature/CitationSearching>



Grey literature

Can be both **published and unpublished** research, produced by government, academia, business and industry, **not controlled by commercial publishers**

Examples include: theses, govt/company reports, conference papers, manuals, handbooks, trial registers, etc

Can be a good source of up-to-date literature for **newer areas of research**

In some areas (eg. social sciences, govt policy), a large amount of the evidence is communicated through grey literature



Finding full text

- “Find It” button



- [Document delivery](#)

If Curtin doesn't have it we will attempt to source it from another library

- [Recommend an item](#)

Suggest a new item for purchase

- [Borrowing from other libraries](#)



Information management

Document your search strategy

- Keep a record of search terms and databases used
- Save it on the database you are searching

Manage search results

- Export from databases to EndNote
- Store pdfs – where?



Save searches & create alerts

First - create a database/platform login

Save searches to save time

Use **Alerts** to keep current on your research topic

- References to **articles on a topic** or **subject** search
- **Contents pages** of recent journal issues
- **Citations** to specific articles or authors



Where to find help

[Health Resources guide](#)

[Systematic Literature Reviews guide](#)

[Systematic & Scoping Reviews guide](#)

[GRASP webpage](#)

Email: LibraryResearchSupport@curtin.edu.au

Provide feedback: <https://tinyurl.com/LibraryGRASP>