WELCOME!

- Why
- History
- Structure
- Types
- Searching
- Writing
  - Stevens Writing & Communication Center
“Analyzing the past to prepare for the future”*

A summary and critical analysis of the relevant literature of a subject

Establishes the present state of thought

Shows potential areas for further study

Shows how your work builds on the work of those before you

*Webster & Watson, 2002, title
LITERATURE REVIEW HISTORY

NOT ALWAYS TYPICAL PRACTICE

James Lind, Scottish shipboard doctor, 1753

Quoted in Grant & Booth, 2009, p. 92
LITERATURE REVIEW STRUCTURE
WHAT THEY LOOK LIKE
Depending on your subject and your field, can be chronologically broad or narrow

- Sciences tend to emphasize **currency**
- But in whatever field, if there is some **fundamental text(s)** that defined the field or topic of study, that must be included no matter how old it is (for most types of review)
Background to a new study:
  - A few paragraphs to a few pages

Or the focus of the study itself → Review papers

LITERATURE REVIEWS TYPES
A FEW OF THE MANY OPTIONS
TRADITIONAL/NARRATIVE

- A critical summary of a body of literature, drawing conclusions about the topic
  - Selective – not everything
    - “Relevant information that provides both context and substance to the authors’ overall argument”*
    - Might therefore be biased by what the author chooses to include
  - Where is the topic today? What are the gaps?
  - Synthesizes findings into narrative

*Kastner et al, 2012, p. 4; Cronin, Ryan, & Coughlan, 2008; Grant & Booth, 2009
A review of "all known knowledge on a topic area"* - but not ALL material as some will be excluded on quality grounds

- A wide-ranging, thorough examination of the literature
- Written to answer a specific research question
- Explicit methodology and inclusion/exclusion criteria so others can replicate it
- Appraisal of the findings of each study with a focus on minimizing bias so as to ensure more reliable results

*Grant & Booth, 2009, p. 102; Cronin, Ryan, & Coughlan, 2008
A review focused on current issues in a field

- The main players
- The major questions and debates being discussed at the moment
- Can miss major trends if they fall out of the scope of the time period covered in the review

Cronin, Ryan, & Coughlan, 2008; Grant & Booth, 2009
META-ANALYSIS AND -SYNTHESIS

- **Meta-analysis:** A systematic review with a focus on data
  - Taking the findings of many quantitative studies and doing one big statistical analysis of the data

- **Meta-synthesis:** A systematic review of qualitative research
  - Turning many works into “new conceptualizations and interpretations”*  

*Cronin, Ryan, & Coughlan, 2008, p. 39; Grant & Booth, 2009
SCOPING

- “[A] snapshot of the field and a complete overview of what has been done”*
  - No quality assessment - EVERYTHING written on a subject, not just the good ones
  - Can show a need for a systematic review

*Xiao & Watson, 2019, p. 99; Grant & Booth, 2009*
FOR MORE ON REVIEW TYPOLOGIES


CONDUCTING THE LITERATURE REVIEW
HOW TO GO ABOUT IT
PLAN

1. Identify the research question
2. Develop criteria for inclusion/exclusion
3. Perform the search
4. Analyze studies
5. Evaluate the work done
6. Synthesize into a narrative
1. Identify your **research focus** and **scope**: “what exactly is of interest and why”*
   - Enough material?
   - Interdisciplinary?

2. Depending on review type, identify **criteria** for inclusion/exclusion – be transparent!
   - Time frame
   - Language
   - Source type and focus

*Cronin, Ryan, & Coughlan, 2008, p. 38*
THE SEARCH
WHERE & HOW TO LOOK
PERFORMING THE SEARCH

Two important strategies:

1. Find material through databases and journals
   - Discipline-specific
   - Abstract-and-index databases

2. Once you have a list, do some citation analysis of important articles
   - Look backward: Reference lists
   - Look forward: Citing articles

Webster & Watson, 2002; Xiao & Watson, 2019
DATABASE SEARCHING

- Assemble a list of keywords
  - Start broad, get narrower as keywords develop
  - Keep track of what searches work and what don’t

- Collect first, examine later: read abstracts for quick decisions
  - Later analysis will reduce your total number
KEEP AN EYE OUT FOR

- Review articles – good sources of references!
- Journals’ table of contents – good way to catch titles with keywords you didn’t think to check
- Proceedings of key conferences in the field – ditto
- Interdisciplinary work – cover all your bases
A BRIEF MENTION OF CITATION MANAGEMENT TOOLS

Useful when gathering lots of citations! Find out more: researchguides.stevens.edu/citationmgmt
FINDING RELEVANT ARTICLES

library.stevens.edu

- Abstract & index databases
  - Scopus
  - Web of Science
- Discipline-specific databases
  - Subject-specific
  - Publisher
- Google Scholar
  - Good for: accessing articles elsewhere online
  - Not good for: refining a search
SEARCH BETTER

Search tips:

- Boolean search operators
- Phrases
- Parentheses
- Truncation
- Examples
SEARCH STRATEGIES: BOOLEAN TERMS

How to combine keywords for better results
SEARCH STRATEGIES

- **Phrase**
  - “sweet potato”

- **Parentheses – expand your search (like math but with words!)**
  - Potato (sweet NOT chip)

- **Truncation/Wildcard**
  - Potato! (Google)
  or
  - Potato* (databases)
Different ways to refer to a term:

- “measles mumps rubella” OR mmr
- vaccine OR immunization

Different uses of a word:

- immuniz*
  - Could lead to immunization, immunize, immunizing…

Synonyms:

- epidemic OR outbreak

Put ‘em together:

(“measles mumps rubella” OR mmr) AND (vaccine OR immuniz*)
AND (epidemic OR outbreak)
DATABASES: LIBRARY.STEVENS.EDU

Find all Library databases on the Databases A-Z list (or researchguides.stevens.edu/literaturereview)
DISCIPLINE-SPECIFIC DATABASES: SUBJECT PULLDOWN MENU

On the Databases A-Z page (researchguides.stevens.edu/az.php)
WEB OF SCIENCE: SEARCH STRINGS

Add rows for more specificity
RESULTS: A LOT

Search within…
FEWER!

Find anything useful?
Click the icon to find it at the Library

JUMP AROUND

References/cited by; keywords
SCOPUS: SEARCH STRINGS

Same idea, different layout
“LITERATURE REVIEW” AND METHOD* AND GUID*
SEARCH WITHIN: “HOW TO” … “SYNTHESIS”

Sorted by **Cited by (highest)**
WHAT IF WE DON’T HAVE THE ARTICLE?

Library.

library.stevens.edu/services/interlibraryloan
WRITING THE LITERATURE REVIEW

NOW WHAT?
Analyze!
Evaluate!
Synthesize!
Keep an eye out for:

- Pertinent info – who/what/where/when/why
  - Page numbers if you quote something (for easy transfer into your paper!)
- Methods – the how
- Numbers (not just “increase/decrease” but “up 50%” or “down 24%”)
- Why was each article written?
<table>
<thead>
<tr>
<th>Article</th>
<th>Author(s)</th>
<th>Year</th>
<th>Source</th>
<th>Context, Issues</th>
<th>Demographic</th>
<th>Methodology</th>
<th>Problem(s)</th>
<th>Conclusions</th>
<th>Other</th>
<th>RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigating the practices of student researchers: Patterns of use and criteria for use of internet and library sources</td>
<td>Burton, V.I.; Chadwick, S.A.</td>
<td>2000</td>
<td>Computers and Composition 17(3), 309-28</td>
<td>To identify how students evaluate their research sources, either Internet or library, and how if students are trained in finding and evaluating library or internet sources. Questions: do students still write papers, how many have been trained, how many use library or Internet resources in their papers, relationship between training and source usage, evaluation criteria</td>
<td>College students - undergrad, grad, other - at a medium sized research university in the West, representing 97 majors</td>
<td>Survey of 303 undergrad, 19 grad, 31 other found through a &quot;showing&quot; means of requesting access to colleague's classes, and then asking all the names from those colleagues, to gather a limited but fairly wide sampling. Only one institution; the training under inquiry was not standardized and different students were trained in different ways that were not accounted for in the survey; the speed at which electronic resources change means this study may be quickly outdated, but is therefore more of a snapshot.</td>
<td>About 91% of the undergrads still write papers, mostly research reports. Library training was more widespread than Internet or library, and was usually done by high school teachers or librarians (76%). 56% were instructed by college prof or librarian (&quot;check out that copy&quot;). 42-4% had no training. Internet training was likely to come from college profs or peers (33%). Those would be more inclined to use either more likely to be skilled in the same training, 10-10% of the students more likely to use Internet sources, perhaps less in their training they were being warned by Internet reliability.</td>
<td>Unraveling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>netLibrary ebook usage at the University of Rochester Libraries, version 2</td>
<td>Gibbons, S.</td>
<td>2001</td>
<td>Available: <a href="http://www.library.roc/chronicles/analysis.pdf">http://www.library.roc/chronicles/analysis.pdf</a> (accessed 01 August 2012)</td>
<td>Two usage studies of netlib: a) e vs print (comparative), and b) e vs print in course reserves.</td>
<td>netlib e-books at Univ of Rochester.</td>
<td>a) Netlib's e-books usage statistics plus survey on website (30 total colleges). b) Locally purchased netlib monographs, both e and print put on reserve (17 titles). End-of-term survey for students whose classes were involved.</td>
<td>a) Consortium led to more books for less, and same UK might not have it otherwise. Most used: econ, bio, comp sci, technology, engineering. Same limitations with netlib as print with text - quickly outdated, not cheaply replaced. Usability issues found via survey, but users still in favor of e. b) 3 to 1 students preferred e vs print version of course readings, but 17 preferred a print copy vs 14 e-books. They got the usefulness of e-books but didn’t see all the limitations to netlib (thinking it’s not worth it). E-books still $5 to buy specifically for course res unless it’s an e-book.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MY WAY

Find the template here: [researchguides.stevens.edu/literaturereview](researchguides.stevens.edu/literaturereview)
EVALUATE

- **Patterns**: What seems to occur regularly?
  - **Structure**: Thematic? Chronological?

- **Gaps**: What issue has no one written about yet?

- **Inconsistencies**: What doesn’t make sense?

- **Responses**: Do any of the studies directly or indirectly respond to another?
Write what you found into a **linear narrative** based on your structure:

- Consensus or difference?
- Inconsistencies and contradictions? Why?
- What are the strengths and weaknesses?
- Recommendations/implications/reason for your new work
- Organize **logically** and **objectively**

- **Quote** if necessary but sparingly and of course cite everything correctly

- Keep it **succinct** – it’s a lot of material but it’s not the bulk of your paper (unless it’s your whole paper!)
QUESTIONS?

Stevens Writing & Communications Center:

- my.stevens.edu/wcc

Research guide:

- researchguides.stevens.edu/literaturereview

Email me:

- vorlofsk@stevens.edu
Good Luck!


