

Literature Searches and Reviews: Some Candid Advice

Eric Youngstrom, Ph.D.

Literature Review: Goals

- Discover what is already known about the topic
- Find current and influential (heavily cited) work in an area
- Motivate the research questions or hypotheses
- Get ideas about methodology
- Uncover limitations of past work

Computer Databases



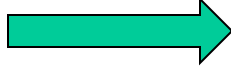
- Now the main tool for starting literature searches
- Different (often partially overlapping) content:
 - PscyINFO is main Psychology database (\$)
 - [PubMed](#) is free, but misses some psychology journals
 - Also SSCI, SCOPUS, Web of Knowledge (\$)
 - GoogleScholar is free
 - Includes “gray” literature
 - More hits, more content
 - Less quality control
 - [TRIP Database](#) is an aggregator

Computer Searches: Shortcomings

- Can miss major papers if the search and paper don't use the same key terms
- Fail to show the connection between papers or the progression of ideas over time
- Drowning in Data –
 - Often get an overwhelming number of “hits”
 - tedious and time-consuming to sort

What's Important?

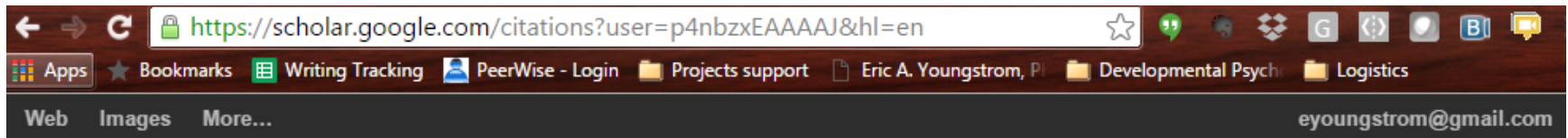
Depends on the Question


- Scouting out an unfamiliar topic  Secondary Sources (reviews, meta-analyses)
- Finding current research  Literature search and key journal review
- Answering specific question  TRIP; Wikipedia, Literature search, Web search (but be prepared for lots of junk)

Deciding Quality of Reference

- Reputation of author (~*h*-index?)
- Reputation of journal (~impact factor)
- Citation impact of article
- Currency (“fresh” versus “classic”)
- Quality of Design
 - Not all research reports are created equal
 - Meta-analysis better than narrative review
- All imperfect measures, & many take time to learn
 - EBM Handbook (Straus et al., 2011) and QUADAS as examples of tools to make ratings systematic and faster

Metrics in Google Scholar



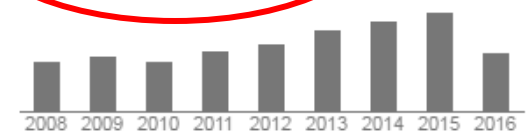
**Eric A. Youngstrom, Ph.D.**
University of North Carolina at Chapel Hill
Evidence-Based Assessment, Bipolar Disorder, Emotions, Clinical Decision Making
Verified email at unc.edu
My profile is public

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Google Scholar

Citation indices	All	Since 2011
Citations	13191	8079
h-index	62	47
i10-index	161	152



<input type="checkbox"/>	Title	<input type="checkbox"/>	Cited by	Year
<input type="checkbox"/>	Behavioral outcomes and evidence of psychopathology among very low birth weight infants at age 20 years M Hack, EA Youngstrom, L Cartar, M Schluchter, HG Taylor, D Flannery, ... Pediatrics 114 (4), 932-940	<input type="checkbox"/>	682	2004
<input type="checkbox"/>	Emotion knowledge as a predictor of social behavior and academic competence in children at risk C Izard, S Fine, D Schultz, A Mostow, B Ackerman, E Youngstrom Psychological science 12 (1), 18-23	<input type="checkbox"/>	603	2001
<input type="checkbox"/>	Meta-analysis of intellectual and neuropsychological test performance in attention-deficit/hyperactivity disorder. TW Frazier, HA Demaree, EA Youngstrom Neuropsychology 18 (3), 543	<input type="checkbox"/>	584	2004

Add co-authors

Cynthia S Kubu	<input type="checkbox"/>	<input type="checkbox"/>
David Harrison	<input type="checkbox"/>	<input type="checkbox"/>
wayne goodman	<input type="checkbox"/>	<input type="checkbox"/>
Claudiu Schirda	<input type="checkbox"/>	<input type="checkbox"/>
Janet S. Hyde	<input type="checkbox"/>	<input type="checkbox"/>
Rex Forehand	<input type="checkbox"/>	<input type="checkbox"/>
Bruce Compas	<input type="checkbox"/>	<input type="checkbox"/>

What's Important?

Also Depends on Stage of Project

- Beginning new research:
“Entering the Forest”
- Defining specific project:
“Picking your Trees”
- Finishing the paper:
“Pruning and Nailing”



Entering the Forest: Getting oriented to new area

- Need to get big picture of the literature quickly
- **Secondary** sources will be more helpful
 - Written for a broader audience
 - Provide more background, emphasize themes
 - Integrate dozens or hundreds of articles
- **Reference lists** from secondary sources are huge help in “searching backwards”

Forest Level Tools

- Search Library Catalogs, Google for books on topic, especially edited volumes (“Handbooks”)
- Learn which journals publish review articles in area of interest
 - Limit your search to those journals if you get too many hits (or use TRIP to filter and only show **reviews**)
 - Use “review” or “meta-analysis” as search terms
- Look at a recent textbook on topic if available
- If Wikipedia page is high quality, could be good overview (but highly variable)



Choosing a Tree: Picking a topic for a paper

- In developing a project, need to focus more on research and answer specific questions:
 - Joining the conversation (or show in progress):
 - What has been done before?
 - What questions are now important?
 - What designs and analyses?
 - What measures and tools?
- Answering these questions will guide the search

Research Questions/Hypotheses

- These usually come last in the introduction section
- But they should be the first part of the intro that you write
 - Possibly the very first part of the entire paper
- At least one paragraph of the Introduction should motivate each of the hypotheses or questions
- Use the same parallel structure throughout:
 - Planned Analyses
 - Results
 - Discussion

Example Hypotheses

- A) People in the “outline using” condition will experience less stress writing
- B) The outline users will have more time spent writing (vs. procrastinating or off-task)
- C) Outline users will have greater productivity
- D) The gains in productivity from using an outline will be mediated by decreased stress and increased time spent writing

Tools for Study Development

- Focused literature searches:
 - current research (most recent papers)
 - other papers using potential measures (compare methods, identify alternatives or challenges)
- Follow leads:
 - Citation searches – look for other papers citing a particular anchor publication
 - other papers by key authors
- Pivotal Articles:
 - Review papers can map out projects
 - Prior research paper as template
(but need new twist – could be as easy as one tweak)



Pruning and Nailing - Finishing the Paper

- Write a draft, then re-read it
 - (put it down, or...
 - have someone else read it,
 - ...or both)
- Cut unnecessary detail: Don't use everything that you found in your searches
 - *Temptation: "I read it, so I'm going to cite it!"*
- Look for the "loose ends"
 - Ideas or claims that need documentation
 - Track down the specific references

Tricks for Finishing

- Use an outline
- Focus on a few main questions or points
 - Less is more; focus tells a clearer story
- Write the first draft without worrying about references -- say what you want to say.
- Look through your references and plug them in where they fit
- Locate loose ends and search for best reference to nail them down

...Or Take the Long Way Home

- Use a computer search to find thousands of “hits.”
- Spend hours reading through them until you have found the 100+ that might be interesting
(or stop when you get bored)
- Download them, then discover that many aren’t so good when you read them
- Stare at the references for a long time
- Write an introduction that tries to “connect the dots”
(The myth is that we need to read and cite EVERYTHING on topic; actually just need to be able to join the conversation)

How Much Do I Need to Read Before I Can Use the Citation?

- Common Assumptions:
 - “We need to read everything written on the topic”
 - “We need to read everything cited in the paper in its entirety”
 - “We don’t need to read – the database gives us the abstract!”
- I would argue that each assumption is usually **wrong**

Levels of Reading

1. Title Only
2. Abstract
3. Skim Introduction & Discussion
4. Read Intro & Discussion,
Skim Methods & Results
5. Read whole paper
6. Read paper repeatedly, taking notes,
studying reference list...

Each “Level of Reading” Has Its Place

- Title only –
screening out the crud in database searches
- Abstract only –
may be useful in deciding what to photocopy
- Deeper reading not needed for articles describing
some measures, other technical features
- **ESSENTIAL:** read enough to make sure that
reference says what you think it does

Be sure it says what you claim

- **Your** credibility is at stake
- If reader knows paper, and your claim is wrong
 - Best interpretation is that you were sloppy or lazy
 - Worst is that you were sleazy
 - Any of these undermines credibility of whole paper
- Peer reviewers will know relevant literature
 - And they may have written some of the papers you cite!

Writing as an Iterative Process

- Plan for multiple drafts of any paper
 - I used to not like doing it;
 - now am a believer (and my job depends on it!)
- Writing will change how you think about ideas, and expose gaps
- Revisit the literature as you write
 - Don't just do a search at beginning
- Don't wait until you are done “reading everything” before starting to write!