PSYC 4165 Lab

T 3/4 & Th 3/6 1:00-3:50

- 1. Turn in Lab 3 Reports
- 2. Review <u>Lab 4 Instructions</u> (Steve has extras; also check website)
- 3. Review your topic brainstorming from last week
- 4. Optional: Prep 1 question you have about the mid-term tomorrow
- 5. Hang tight

Agenda

- * Brief Q&A for mid-term tomorrow [15m-tops!]
- * Lab 4
 - * Research speed-dating [10m]
 - * Project Management for Dummies (Steve)
 - Lab 4 overview; Paper, Poster, Powerpoint;
 Collaboration Norms; Lit Review; Research Hacks
 - Work in Research Teams to write <u>2 Proposal Abstracts</u>

Things to do

By the end of this lab...

- * Register your Research Team (form)
- * Your Team will submit 2 proposal abstracts, (~150 words ea.) describing a potential experiment

By the end of <u>next</u> lab...

* Submit a formal proposal for 1 experiment

Mid-Term Review [15m]

* If you are comfortable with verbally responding to any of the items on the review sheet, YOU WILL PROBABLY DO BETTER THAN YOU EXPECT!

Research Speed Dating

- * Stand up. Push your chair in. Push your stuff under the desk.
- * Pair up with a <u>stranger</u> (you will have to move around the room for this)
- * In 120s or less, take turns <u>explain an idea</u> you have for an experiment (~1m each)
- * Switch partners
- * We'll do this at least 5 times

Lab 4 Overview

- * 3-D: Each Team will <u>Design</u>, <u>Deliver</u>, and <u>Describe</u> an experiment in the domain of human perception.
- * Experiment <u>must</u> be informed by published research (y'all got some reading to do)
- * Requires an objectively testable hypothesis about a phenomenon of perception, worthy of study

CITI Training

- * You must complete only 1 CITI training module under the heading
- * Social Behavioral Research Investigators and <u>Key</u> <u>Personnel</u>
- * Print completion certificate and turn-in to Steve

Paper, Poster, Powerpoint

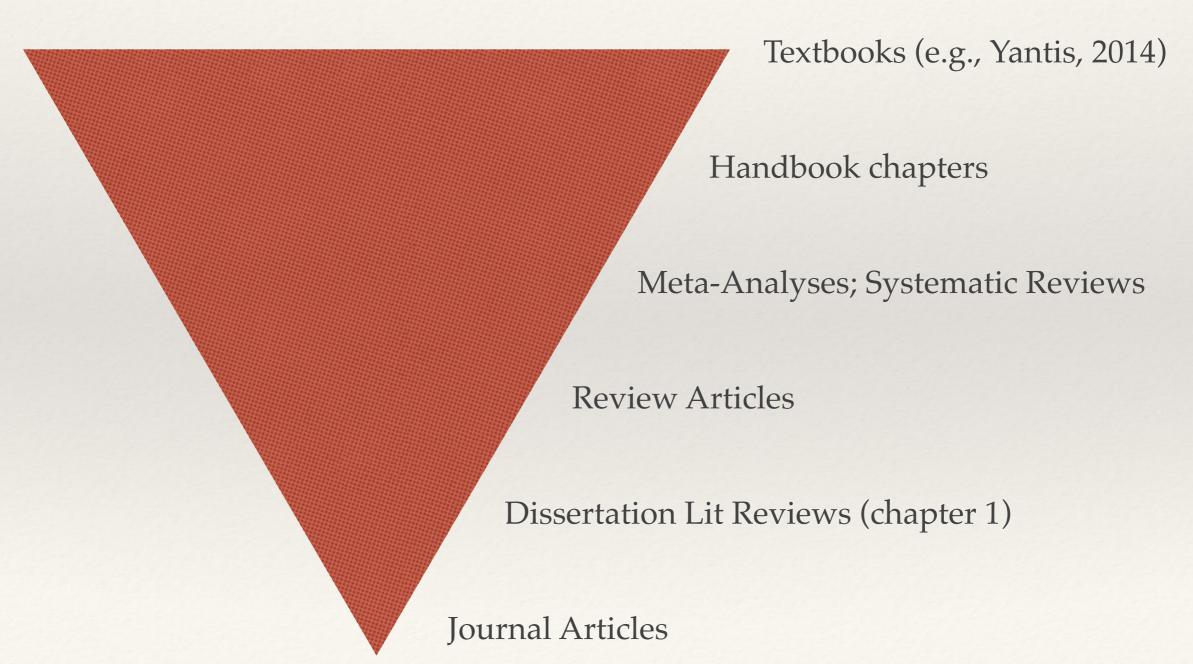
- * Each Team will report their findings with 3 documents:
 - * Lab report (5/2)
 - * Poster for Undergraduate Research Day (see templates in Lab 4 Tools) (4/29)
 - * Powerpoint for an in-class presentation (4/29)
- * Each document will follow flawless APA format with the following sections: Introduction, Method, Results, & References.
 - * For Lab report: Each team member will submit their own individual Discussion section

Collaboration Norms

"Would you work on a research project with this person again?"

Lit Review

Start broad, end narrow



Where to look: Steve's 3 favs

- * GoogleScholar: Good place to start; can be hit and miss
- ProQuest (proquest.umi.com): Dissertations and articles, decent search tools
- * WebofKnowledge: The Ultimate database for scientific journals; very powerful search tools

* Can search from campus; if off-campus, use VPN

Research Hacks

- * Save all of your project files (.pdf, .r, .py) on a shared <u>GoogleDrive</u>. Keep your files organized; use clear labeling
- * Setup shared <u>GoogleDocs</u> (e.g., proposals, outlines, even presentations). <u>Evernote</u> is another great option
- Maintain a detailed task list (to-do):
 - * "3/4 Steve: READ Harvey et al (1999); Was oblique effect found in Golden Retrievers? (Y/N)"
- * Maintain a detailed log (done):
 - * "3/5 Steve: Harvey et al (1999); oblique effect was NOT found in Golden Retrievers.

Research Hacks

- * Save your literature search results in a document (include search terms, meta-data, and abstract)
- * Summarize findings from articles as simple statements:
 - * "Motion detect~lum contrast; JND.30 > JND.00"
- * Cite from abstract: If a finding is not in the abstract, it's probably not worth citing
- * Use reference lists to trace research back in time; try to find the first experiment that investigated a similar problem

Research Hacks

- * Maintain a list of relevant <u>keywords</u>; becomes a dictionary & thesaurus
 - * Operational <u>definitions</u> often differ! What might those differences tell you about the problem?
- * Make diagrams of everything (exp. design, models)
- * Chapter 1 Knowledge: the most crucial knowledge to understand a topic is almost always in chapter 1

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2 Proposal Abstracts

- * Proposal Abstracts (~150 words ea.)
 - * State perception phenomenon/effect, cite 2 sources
 - * State briefly why this a worthy experiment
 - * Describe an experiment to test this
 - * include: IVs and DVs
 - * State your expected results

Looking ahead

Next week...

- Submit 1 Formal Proposal (it's just like a lab report):
 - * Introduction (with cited literature)
 - * Method
 - * Expected Results section