

LITERATURE REVIEW AND RESEARCH SYNTHESIS

EDP 385, Unique # 10503

Thursdays, 2:00 PM – 5:00 PM, SZB 444

Spring 2013, The University of Texas at Austin

Instructor: Erika A. Patall

Office: SZB 506B

Phone: 512-471-0381

Email: patall@austin.utexas.edu

Office hours: Thursday 11AM – 12 PM
and by appointment

PURPOSE

This course is designed to help students with the completion of a literature review (a component of any master's thesis, dissertation, peer-reviewed research article or grant proposal) or systematic research synthesis. Research synthesis is conceptualized as a rigorous and systematic scientific activity employing primary studies as the units of data with the objective of summarizing the evidence related to a particular question. Among the topics to be covered in this course are problem formation, how research is communicated and how the scientific communication system affects knowledge, methods for locating research, problems in retrieving data from secondary sources, judging the quality of research, estimating the impact of policies and practices and gauging the strength of relations, assessing variance in impacts and relationships across studies, and writing literature reviews and reports of research syntheses.

READINGS

Specified book chapters and journal articles will be made available on *Blackboard* at <https://courses.utexas.edu/webapps/portal/frameset.jsp>

Required texts:

Galvan, J. L. (2013). *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences* (5th Ed). Pyrczak Publishing.

Cooper, H., Hedges, L.V. & Valentine, J. C. (2009). *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Cooper, H. (2009). *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

Recommended (optional) texts:

American Psychological Association. (2009). *Publication Manual of the American Psychological Association* (6th Ed.). Washington DC: American Psychological Association.

Trimble, J. R. (2000). *Writing with Style: Conversations on the Art of Writing* (2nd Edition). Upper Saddle River, New Jersey: Prentice Hall.

ELEMENTS OF THE COURSE

Participation

This is a discussion-oriented seminar and everyone is expected to participate in each class session. Please come to class prepared to engage in a thoughtful and scholarly discussion of the readings and your literature reviewing projects. Note that most written assignments include an informal presentation component that will not be formerly graded for quality. Rather, credit for regularly presenting and interacting with the class regarding each phase of your review projects (i.e. problem formulation, search strategies, coding guide, etc.) will be reflected in points allocated to participation.

Review Critiques

Students will be asked to complete 2 critique reports in which they find a published review and describe and critique it. Students will be asked to engage in this activity once at the beginning of the semester (**due January 31** -- when their reviewing skills may be less developed) and once toward the end of the semester (**due April 18** -- when their reviewing skills may be more developed). As part of this assignment, students should prepare **both a written report and informal presentation** for their classmates addressing the content of the review, the particular reviewing strategy choices in the paper and an assessment of those choices, the strengths of the review, and the weaknesses of the review. Students may choose any article that is primarily a review paper (i.e. narrative summary of the current state of the literature, theoretical review in which a theory is built based on a review of literature, systematic research synthesis either with or without a meta-analysis). Review critique reports are expected to be **two pages double spaced or one page single spaced**. Time during class will devoted to presentations so that we might use students' review critiques to prompt fruitful discussion in class. However, students are not required to present their critiques (though encouraged) and time may not allow for every student to present critiques. The written report will be the product used for grading. As a guideline, presentations should be approximately 5 to 10 minutes. Students should email critiques to Dr. Patall by the specified due dates.

Problem Formulation Report

Students will be asked to prepare a problem formulation report in which they outline their research topic, questions, constructs, and issues to be addressed in their final paper. Dr. Patall will provide a problem formulation worksheet to assist with the completion of this task. As part of this assignment, students should prepare **both this written report and informal presentation** for their classmates. The written report will be the product primarily used for grading. However, every student is expected to present information on their problem formulation in order to receive feedback from the class. This may occur over several class periods (second half of class) so that every student may have an opportunity to present. As a guideline, presentations should be approximately 5 to 10 minutes. Students should email their problem formulation report to Dr. Patall by **February 14**.

Literature Searching Strategies Report

Students will be asked to prepare a search strategies report in which they describe how they have or intend to conduct their literature search for their final paper. Dr. Patall will provide a search strategies worksheet to assist with the completion of this task. As part of this assignment, students should prepare **both this written report and informal presentation** for their classmates. The written report will be the primary product used for grading. However, every student is expected to present information on their search strategies in order to receive feedback from the class. This may occur over several class periods (second half of class) so that every student may have an opportunity to present. As a guideline, presentations should be approximately 5 to 10 minutes. Students should email their search strategies report to Dr. Patall by **March 7**.

Coding Guide Draft

Students will be asked to prepare a draft of the coding guide they will use to collect information from research reports relevant to their review. As part of this assignment, students should prepare **both this written report and informal presentation** for their classmates. The presentations should just briefly highlight the content of their coding guide and focus mostly on any challenges experienced while making the coding guide. The coding guide draft will be the product used for grading. However, every student is expected to present information on their coding guide in order to receive feedback from the class. This may occur over several class periods (second half of class) so that every student may have an opportunity to present. As a guideline, presentations should be approximately 5 to 10 minutes. Students should email their coding guides to Dr. Patall by **March 28**.

Paper Introduction

Students will be asked to complete a **2-4 page introduction** to their final papers. This part of the paper introduces the reader to your topic as well as sets the stage for your literature review and reviewing methods (or primary study empirical methods, if the literature review is intended to set-up and justify an empirical article). The introduction should provide a context and rationale for your paper that includes a discussion of the important or relevance of the topic, a brief overview of the literature review, and an explicit statement of your paper's purpose. You should end the introduction with the main research questions to be addressed in the review or literature review leading to an empirical study. Students should email their paper introductions to Dr. Patall by **April 4**.

Final Paper and Presentation

You will be asked to complete a final **paper** that is approximately **20-25 pages** (double spaced, Times New Roman 12pt font). This paper will be **due May 2** and may be emailed to Dr. Patall.

The purpose of this paper is to give you an opportunity to practice your reviewing skills and make progress and get feedback on a paper that you intend to use for either a milestone (i.e. qualifying paper, dissertation, thesis) or publication. For that reason, I am not expecting to receive complete or perfectly polished papers (though some paper may

have all sections needed for a publication). They may be works-in-progress. But, adequate progress should be demonstrated. The topic of the paper is entirely up to you. Note that reviewing takes many forms and serves many purposes. Thus, your paper might take one of several forms:

- a) Narrative or theoretical review. A review and critical thought paper in which you might develop your own theoretical perspective or extend/apply existing perspectives after narratively and extensively reviewing the current state of some literature.
- b) Empirical Research Proposal or Report. A paper in which you propose primary empirical research that will extend existing knowledge on a topic that you have extensively reviewed. Note that typically published research reports have relatively short literature reviews. For the purpose of this assignment, please give greater focus to the literature review than other sections (methods, results, discussion). Please also note this may be either a proposal for research or completed report.
- c) Research Synthesis Proposal or Report. A paper in which you attempt to systematically and comprehensively synthesize and summarize the evidence related to a particular question, direct future research, provide practical guidelines, and/or draw implications for policy. This type of report may or may not include a meta-analysis (or plans for a meta-analysis). Note that integral to this type of paper is narratively summarizing the state of the literature and describing the systematic methods uses for systematically synthesizing research and conducting the meta-analysis (if intended). cursory attention may be given to statistical issues in the meta-analysis if one is intended. Either a proposal for a research synthesis or a completed report is acceptable.
- d) Another form. If you have another idea about the form of paper you would like to write, please discuss it with the instructor.

The final two class periods will be used for students to present on their final papers. Powerpoint or another visual presentation medium is encouraged. **Presentations should be 10 to 15 minutes.**

Late papers will not be accepted. Papers should be written in a style consistent with the recommendations of the American Psychological Association (6th Edition). Be sure to include a reference list at the end of the paper listing the references cited in your paper.

GRADING

To summarize, course grades will be based on the average percentage of points obtained from seven sources, weighted as follows:

Participation: 20%
Review critiques (2): 10% (5% each)
Problem formulation report: 10%
Search strategies report: 10%
Coding guide draft: 10%
Paper introduction: 10%
Final paper and presentation: 30%

Grades will be distributed according to the following scale:

A:	92.5-100
A-:	89.5-92
B+:	86.5-89
B:	82.5-87
B-:	79.5-82
C+:	76.5-79
C:	72.5-76
C-:	69.5-72
D:	59.5-69
F:	<59.5%

UNIVERSITY POLICIES

UT Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Scholastic Dishonesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. For further information, please visit the Student Judicial Services web site at www.utexas.edu/dpets/dos/sjs/.

Students with Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information contact the Office of the Dean of Students, at **471-6259, 471-4641 TTY**.

Religious Holidays

Religious holy days sometimes conflict with class and examination schedules. If you miss an examination or course assignment due to the observance of a religious holy day you will be given an opportunity to complete the work missed within a reasonable time after the absence. It is the policy of The University of Texas at Austin that you must notify each of your instructors at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.

OUTLINE OF COURSE AND READING LIST

WEEK	DATE	TOPIC	READINGS	ASSIGNMENTS & DEADLINES
Week 1	Jan. 17	Introduction and syllabus		
Week 2	Jan. 24	Summarizing and synthesizing research as a scientific process	Galvan (2013). Ch. 1 & 2 Cooper, Hedges, & Valentine (2009). Ch. 1 Cooper (2009). Ch. 1	
Week 3	Jan. 31	The landscape of reviewing: Comparing the various types of review	Cooper & Rosenthal (1980) Graham (1994) Cooper & Door (1995) Graham (1995) Petticrew (2003) Collins & Fauser (2004) Slavin (1995)	1 st review critique presentation and report due
Week 4	Feb. 7	Problem formulation	McGuire (1997) Galvan (2013). Ch. 3 Cooper (2009). Ch. 2 Cooper, Hedges, & Valentine (2009). Ch. 2 & 3	
Week 5	Feb. 14	Searching the literature	Cooper, Hedges, & Valentine (2009). Ch. 4 & 5 Cooper (2009). Ch. 3	Class presentation on problem formulation and problem formulation report due
Week 6	Feb. 21	Searching the literature Jenelle Hedstrom from PCL library presents on literature searching strategies	Cooper, Hedges, & Valentine (2009). Ch. 6 Cooper, DeNeve, & Charlton (1997) Egger (1998) at: http://www.bmj.com/content/316/7124/61 Ferguson & Brannick (2012)	
Week 7	Feb. 28	No Class – Dr. Patall out of town		
Week 8	Mar. 7	Gathering information from studies – Coding	Cooper (2009). Ch. 4 Cooper, Hedges, & Valentine (2009). Ch. 8 & 9. Galvan (2013). Ch. 4	Class presentation on search strategies and report due

WEEK	DATE	TOPIC	READINGS	ASSIGNMENTS & DEADLINES
Week 9	Mar. 14	No Class – SPRING BREAK		
Week 10	Mar. 21	Gathering information from studies and evaluating quality	Galvan (2013). Ch. 5, 6, & 7 Cooper (2009). Ch. 5 Cooper, Hedges, & Valentine (2009). Ch. 10.	
Week 11	Mar. 28	Primer on analyzing and integrating findings	Galvan (2013). Ch. 8 Cooper (2009). Ch. 6	Class presentation on coding guide and coding guide draft due
Week 12	Apr. 4	Reporting results	Galvan (2013). Ch. 9, 10, & 11 Cooper (2009). Ch. 8	Paper introduction due
Week 15	Apr. 11	Evaluation and use of reviews	Pyrzszak (2013). Ch. 4 & 5 Cooper, Hedges, & Valentine (2009). Ch. 28 & 25	
Week 15	Apr. 18	Synthesizing syntheses	Cooper & Koenka (2012) Valentine, Cooper, Patall, Tyson & Robinson (2010)	2 nd review critique presentation and report due
Week 15	Apr.25	Paper presentations		
Week 16	May 2	Paper presentations		Final paper due

DETAILED OVERVIEW OF READINGS

JANUARY 17: INTRODUCTION AND SYLLABUS

JANUARY 24: SUMMARIZING AND SYNTHESIZING RESEARCH AS A SCIENTIFIC PROCESS

Cooper, H. & Hedges, L.V. (2009). Research synthesis as a scientific process. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Galvan, J. L. (2013). Chapter 1 -- Writing Reviews of Academic Literature: An Overview. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Galvan, J. L. (2013). Chapter 2 – Consideration in Writing Reviews for Specific Purposes. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Cooper, H. (2009). Chapter 1 – Introduction. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

JANUARY 31: THE LANDSCAPE OF REVIEWING: COMPARING THE VARIOUS TYPES OF REVIEW

Cooper, H. & Rosenthal, R. (1980). Statistical versus traditional procedures for summarizing research findings. *Psychological Bulletin*, 87, 442-449.

Graham, S. (1994). Motivation in African Americans. *Review of Educational Research*, 64, 55-117.

Cooper, H. & Dorr, N. (1995). Race comparisons on need for achievement: A meta-analytic alternative to Graham's narrative review. *Review of Educational Research*, 65, 483-508.

Graham, S. (1995). Narrative versus meta-analytic reviews of race differences in motivation: A comment on Cooper and Dorr. *Review of Educational Research*, 65, 509-514.

Petticrew, M. (2003). Why certain systematic reviews reach uncertain conclusions. *British Medical Journal*, 326, 756-758.

Collins, J. A. & Fauser, B. C.J.M. (2004). Balancing the strengths of systematic and narrative reviews. *Human Reproduction Update*, 11, 103-104

Slavin, R. E. (1995). Best evidence synthesis: An intelligent alternative to meta-analysis. *Journal of Clinical Epidemiology*, 48, 9-18.

FEBRUARY 7: PROBLEM FORMULATION

- McGuire, W. J. (1997). Creative hypothesis generating in psychology: Some useful heuristics. *Annual Review of Psychology*, 48, 1-30.
- Galvan, J. L. (2013). Chapter 3 – Selecting a Topic and Identifying Literature for Review. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.
- Cooper, H. (2009). Chapter 2 – Step 1: Formulating the problem. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.
- Cooper, H (2009). Hypotheses and problems in research synthesis. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.
- Hedges, L. (2009). Statistical considerations. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

FEBRUARY 14: SEARCHING THE LITERATURE

- White, H. (2009). Scientific communication and literature retrieval. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.
- Reed, J. G. & Baxter, P. M. (2009). Using reference databases. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.
- Cooper, H. (2009). Chapter 3 – Step 2: Searching the literature. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

FEBRUARY 21: SEARCHING THE LITERATURE: GREY LITERATURE AND SEARCHING BIASES

Janelle Hedstrom from PCL presents on database searching and library services

- Rothstein, H. & Hopewell, S. (2009). Grey literature. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.
- Cooper, H., DeNeve, K., & Charlton, K. (1997). Finding the missing science: The fate studies submitted for review by a human subjects committee. *Psychological Methods*, 2, 447-452.
- Egger, M. & Smith, G. D. (1998). Meta-analysis bias in location and selection of studies. *British Medical Journal*, 316, 61.

Ferguson, C. J. & Brannick, M. T. (2012). Publication bias in psychological science: Prevalence, methods for identifying and controlling, and implications for the use of meta-analyses. *Psychological Methods*, 17, 120-128.

FEBRUARY 28: NO CLASS

MARCH 7: GATHERING INFORMATION FROM STUDIES – CODING

Cooper, H. (2009). Chapter 4 – Step 3: Gathering information from studies. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

Lipsey, M. W. (2009). Identifying interesting variables and analysis opportunities. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Wilson, D. B. (2009). Systematic coding. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Galvan, J. L. (2013). Chapter 4 – General guidelines for analyzing literature. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

MARCH 14: SPRING BREAK

MARCH 21: GATHERING INFORMATION FROM STUDIES AND EVALUATING QUALITY

Galvan, J. L. (2013). Chapter 5 – Analyzing quantitative research literature. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Galvan, J. L. (2013). Chapter 6 – Analyzing qualitative research literature. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Galvan, J. L. (2013). Chapter 7 – Building tables to summarize literature not generalize. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Cooper, H. (2009). Chapter 5 – Step 4: Evaluating the quality of studies. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

Orwin, R. G. & Vevea, J. L. (2009). Evaluating coding decisions. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

MARCH 28: PRIMER ON ANALYZING AND INTERPRETING FINDINGS

Galvan, J. L. (2013). Chapter 8 – Synthesizing literature prior to writing a review. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Cooper, H. (2009). Chapter 6 – Step 5: Analyzing and integrating the outcomes of studies. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

APRIL 4: REPORTING RESULTS

Galvan, J. L. (2013). Chapter 9 – Guidelines for writing a first draft. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Galvan, J. L. (2013). Chapter 10 – Guidelines for developing a coherent essay. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Galvan, J. L. (2013). Chapter 9 – Guidelines for style, mechanics, and language usage. In *Writing Literature Reviews: A Guide for Students in the Social and Behavioral Sciences (5th Ed)*. Pyrczak Publishing.

Cooper, H. (2009). Chapter 8 – Step 7: Presenting the results. In *Research Synthesis and Meta-Analysis: A Step-by-Step Approach*. Thousand Oaks, CA: Sage.

APRIL 11: EVALUATION AND USE OF REVIEWS

Matt, G. E. & Cook, T. D. (2009). Threats to the validity of generalized inferences. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Cordray, D. S. & Morphy, P. (2009). Research synthesis and public policy. In H. Cooper, L.V. Hedges, & J.C. Valentine (Eds.) *Handbook of Research Synthesis and Meta-Analysis*. New York: Russell Sage Foundation.

Pyrczak, F. (2013). Ch. 4 – Evaluating introductions and literature reviews. In *Evaluating research in academic journals: A practical guide to realistic evaluation (5th Ed)*. Pyrczak Publishing.

Pyrczak, F. (2013). Ch. 5 – A closer look at evaluating literature reviews. In *Evaluating research in academic journals: A practical guide to realistic evaluation (5th Ed)*. Pyrczak Publishing.

APRIL 18: SYNTHESIZING SYNTHESSES

Cooper, H. & Koenka, A. C. (2012). The overview of reviews: Unique challenges and opportunities when research syntheses are the principal elements of new integrative scholarship. *American Psychologist*, 67, 446-462.

Valentine, J. C., Cooper, H., Patall, E. A., Tyson, D, & Civey Robinson, J. (2010). A method for evaluating research syntheses: The quality, conclusions, and consensus of twelve syntheses of the effects of after school programs. *Research Synthesis Methods*, 1, 20-38.

APRIL 25: FINAL PAPER PRESENTATIONS

MAY 2: FINAL PAPER PRESENTATIONS

NOTE: This syllabus is subject to change.