LITERATURE REVIEW AND RESEARCH SYNTHESIS
EDP 385, Unique # 10595
Tuesdays, 1:00 PM – 4:00 PM, SZB 444
Spring 2015, The University of Texas at Austin

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Office hours: Wednesday 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 (5*th *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 (2*nd *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 February 3** -- when their reviewing skills may be less developed) and once toward the end of the semester (**due April 14** -- 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. More specific guidance for critiquing will be discussed during class. 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 can post critiques to canvas (under Assignments) 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 can post problem formulation reports to canvas (under Assignments) by **February 17.**

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 can post literature search strategies reports to canvas (under Assignments) by **March 10.**

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 can post literature search strategies reports to canvas (under Assignments) by **March 31.**

Final Review Project Paper and Presentation

You will be asked to complete a **final paper** in which you **report your review project or propose the systematic review that you intend to complete**. This paper will be **due May 5** and may be posted to canvas under assignments.

The purpose of this paper is to give you an opportunity to practice your reviewing skills and make progress and get feedback on a review that you intend to complete. It is very difficult to complete a systematic review in a couple months. For that reason, I am not expecting to receive complete or perfectly polished papers (though for those of you who were working on this project prior to the start of the class, completed papers are fine). 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. Given the goals of this class, your paper may take one of several forms:

a) <u>Narrative or theoretical review proposal or report</u>. 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) <u>Research synthesis proposal or report</u>. 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.

Excluded from the options above are primary empirical projects that begin with a literature review section because the literature review section is typically very brief and not the primary focus of primary empirical papers. Likewise, methods for the review are not typically reported in empirical papers.

My expectation is that papers are likely to range from **10 to 30 pages** (double spaced, Times New Roman 12pt font). The broad range of possible lengths is a reflection of the likelihood that papers will be at various stages of progress across individuals in the class. This is totally acceptable. **One section that should be relatively polished is the introduction**. This is the first 2 to 4 pages of the paper where you introduce the reader to your topic as well as set the stage for your literature review and reviewing methods. 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. Other sections may be in draft form (and could include notes about what you plan to do or what you are still working out). Reviewing methods or plans for methods should be covered in some detail, but may also be in draft form and include notes of what you are still working out.

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 no more than 15 minutes** so we leave time for discussion of each project.

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 <u>cited</u> in your paper.

GRADING

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

Participation: 20%
Review critiques (2): 20% (10% each)
Problem formulation report: 10%
Search strategies report: 10%
Coding guide draft: 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

Special Needs: The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. To determine if you qualify, please contact the Dean of Students at 471-6259; TTY 471-4641.

Religious Holy Day Observance: If an assignment or exam falls due on a day when you are observing a religious holy day, we will work with you to find a time to submit the work.

Academic Dishonesty and Plagiarism: The University of Texas at Austin takes academic dishonesty and plagiarism very seriously. Students who violate University rules on academic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. For further information, please visit http://deanofstudents.utexas.edu/sjs/academicintegrity.html.

The twelfth class day is Jan. 29, which is the last day to possibly get a refund if you drop a class.

Safety information: Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.

In the event of an evacuation, follow the instruction of faculty or class instructors.
Do not re-enter a building unless given instructions by the following: The University of Texas at Austin Police Department, or Fire Prevention Services office.

Other important Emergency
Information: http://www.utexas.edu/safety/preparedness/

Behavior Concerns Advice Line: Use this resource to help fellow UT members about whom you have concerns BCAL: 232-5050

OUTLINE OF COURSE AND READING LIST

WEEK	DATE	TOPIC	READINGS	ASSIGNMENTS & DEADLINES
Week 1	Jan. 20	Introduction and syllabus		
Week 2	Jan. 27	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	Feb. 3	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)	1st review critique presentation and report due
Week 4	Feb. 10	Problem formulation	McGuire (1997) Galvan (2013). Ch. 3 Cooper (2009). Ch. 2 Cooper, Hedges, & Valentine (2009). Ch. 2 & 3	
Week 5	Feb. 17	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. 24	Searching the literature Jenelle Hedstrom from PCL library presents on literature searching strategies	Cooper, Hedges, & Valentine (2009). Ch. 6 Cooper, DeNeve, & Charlton (1997) Egger & Smith (1998) Ferguson & Brannick (2012)	
Week 7	Mar. 3	Gathering information from studies – Coding	Cooper (2009). Ch. 4 Cooper, Hedges, & Valentine (2009). Ch. 8 & 9. Galvan (2013). Ch. 4	

WEEK	DATE	TOPIC	READINGS	ASSIGNMENTS & DEADLINES
Week 8	Mar. 10	Gathering information from studies and evaluating quality	Galvan (2013). Ch. 5, 6, & 7 Cooper (2009). Ch. 5 Cooper, Hedges, & Valentine (2009). Ch. 10.	Class presentation on search strategies and report due
SPRING BREAK	Mar. 17	**No Class**		
Week 9	Mar. 24	Primer on analyzing and integrating findings	Galvan (2013). Ch. 8 Cooper (2009). Ch. 6	
Week 10	Mar. 31	Reporting results	Galvan (2013). Ch. 9, 10, & 11 Cooper (2009). Ch. 8	Class presentation on coding guide and coding guide draft due
Week 11	Apr. 7	Evaluation and use of reviews	Pyrczak (2013). Ch. 4 & 5 Cooper, Hedges, & Valentine (2009). Ch. 28 & 25	
Week 12	Apr. 14	Synthesizing syntheses	Cooper & Koenka (2012) Valentine, Cooper, Patall, Tyson & Robinson (2010) Lipsey & Wilson (1993) Mitchell (2012)	2nd review critique presentation and report due
AERA	Apr. 21	**No Class**		
Week 13	Apr.28	Review project presentations		
Week 14	May 5	Review project presentations		Final review project paper due

JANUARY 20:   **INTRODUCTION AND SYLLABUS**

JANUARY 27:   **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.

FEBRUARY 3:   **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 10:   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 17:   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 24:   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.

MARCH 3: **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 10: **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 17: **SPRING BREAK**

MARCH 24:   **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.

MARCH 31:   **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 7:   **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*

APRIL 14:   **SYNTHESIZING SYNTHESES**

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.

Lipsey, M. W. & Wilson, D. B. (1993). The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. *American Psychologist, 48(12),* 1181-1209.

Mitchell, G. (2012). Revisiting truth and triviality: The external validity of research in the psychological laboratory. *Perspectives in Psychological Science, 7(2),* 109-117.

APRIL 28:   **REVIEW PROJECT PRESENTATIONS**

MAY 5:   **REVIEW PROJECT PRESENTATIONS**

NOTE: This syllabus is subject to change.