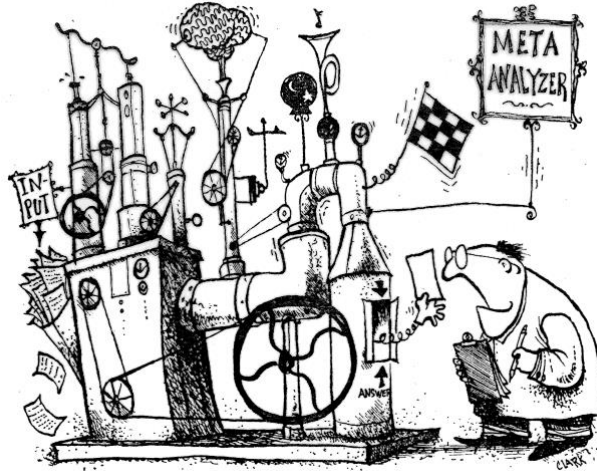


– Meta-Analysis (COMM 7715; #35115; in-person; 3 credits) –
Autumn Semester 2025
Tuesday & Thursday 3:55 – 5:15 PM
3116 Derby Hall



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Course Description

The term “meta-analysis” literally means “analysis of analyses.” A meta-analysis is a quantitative literature review that combines the analyses of studies conducted on the same topic. Conducting a meta-analysis involves seven steps:

- (1) Formulating the problem
- (2) Searching the literature
- (3) Gathering information from studies
- (4) Evaluating the quality of studies
- (5) Analyzing and integrating the outcomes of studies
- (6) Interpreting the evidence
- (7) Presenting the results

Students enrolled in this class will receive hands on experience in conducting a meta-analysis on a topic of their choice. Several class periods are designated workdays where students can work on assignments during class time, with the instructor available to answer questions. Please bring your laptop to class each day. Each student will present their meta-analysis as a brief (12-minute) in-class PowerPoint presentation and as a brief (15-page) final manuscript.

Learning Objectives

- (1) Students will be able to formulate a topic to conduct a meta-analysis on.
- (2) Students will be able to conduct a literature review to collect relevant studies for their topic.
- (3) Students will be able to code relevant variables from the studies they retrieve.
- (4) Students will be able to evaluate the quality of the studies they retrieve.
- (5) Students will be able to meta-analyze the effects from the studies they retrieved.
- (6) Students will be able to interpret the meta-analytic results.
- (7) Students will be able to present their meta-analytic results, both as an oral presentation and as a written manuscript.

Readings

Please read the assigned readings listed on the tentative schedule BEFORE you come to class. I will also supplement the required readings with readings that are not required but will deepen your understanding about the topics we discuss.

Textbook

Cooper, H. (2017). *Research synthesis and meta-analysis: A step-by-step approach* (5th edition). Sage.

The textbook is being provided electronically via the **OSU CarmenBooks** program, which saves students up to 80%. The fee is included as part of tuition and is listed as **CarmenBooks fee** on your Statement of Account. In addition to cost-savings, materials provided through CarmenBooks are available *immediately* on or before the first day of class.

Journal Articles

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bem, D. J. (1995). Writing a review article for *Psychological Bulletin*. *Psychological Bulletin*, 118(2), 172-177. <https://doi.org/10.1037/0033-2909.118.2.172>
- Kepes, S., Wang, W., & Cortina, J. M. (2023). Assessing publication bias: A 7-step user's guide with best-practice recommendations. *Journal of Business and Psychology*, 38, 957-982. <https://doi.org/10.1007/s10869-022-09840-0>
- Prentice, D. A., & Miller, D. T. (1992). When small effects are impressive. *Psychological Bulletin*, 112(1), 160-164. <https://doi.org/10.1037/0033-2909.112.1.160>
- Rosenthal, R. (1995). Writing meta-analytic reviews. *Psychological Bulletin*, 118(2), 183-192. <https://doi.org/10.1037/0033-2909.118.2.183>
- Vevea, J. L., Zelinsky, N. A., & Orwin, R. G., & (2019). Evaluating coding decisions. In H. Cooper, L. V. Hedges, & J. C. Valentine (Eds.), *The handbook of research synthesis and meta-analysis*, 3rd ed. (pp. 173–204). Russell Sage Foundation.

Software

CarmenCanvas

The course web page is on [CarmenCanvas](#). It contains the syllabus, announcements, grades, and 17 weekly modules. Each module specifies the topic discussed, assigned readings,

PowerPoint slides, and assignments. Some weekly modules contain supplemental readings, which will give you a deeper understanding of the concepts.

Comprehensive Meta-Analysis (CMA)

In this class we will use Comprehensive Meta-Analysis (CMA) software ([link](#)). CMA is a “powerful computer program for meta-analysis. The program combines ease of use with a wide array of computational options and sophisticated graphics.” It was developed in 1986 by a team of meta-analysis experts with over 25 years of funding from several federal grants.

CMA will work on either a PC or Macintosh (“Mac”) computer. On Mac computers, however, CMA requires a Windows emulator (e.g., Parallels, CrossOver Mac, Virtual PC for Mac, VirtualBox, Wine, Boot Camp). There are several [CMA manuals](#).

Typically, CMA offers a free 10-day/10-trial¹ option, but I was able to negotiate a FREE 60-day/100-trial option that allows students to work on the assignments with all the available options within the professional program. I was also able to negotiate a 6-Month Professional license for \$100, which would be ideal for anyone that would want to work on projects outside of class.² To access the program please go to the CMA website and download the trial ([link](#)). When you have completed the installation, please start the program. In the license manager pop-up, click on 'I want to get an unlock code,' and send CMA the computer ID displayed ALONG WITH "Dr. Bushman."³

Top Hat

We will use Top Hat for anonymous in-class surveys. The Join Code for our class is **303889** (Password=META). Please read the [Top Hat student guide](#).

Grading

There will be no quizzes or exams. Grades will be based on seven assignments. No credit will be given for late assignments. There are 200 points possible:

Assignment 1: Problem definition (5 points)

Assignment 2: Literature search (10 points)

Assignment 3: Coding sheet and guide (10 points)

Assignment 4: Inter-coder reliability (25 points)

Assignment 5: Meta-analytic results (25 points)

Assignment 6: PowerPoint presentation (25 points)

Assignment 7: Final manuscript (100 points)

Grades will be assigned using standard percentages:

A: 93-100%	B: 83-86%	C: 73-76%	D: 60-66%
A-: 90-92%	B-: 80-82%	C-: 70-72%	E: < 60%
B+: 87-89%	C+: 77-79%	D+: 67-69%	

¹ Note that one “trial” means opening and quitting the software one time

² A 1-year student Professional lease may be obtained for \$295 ([link](#)), which is \$200 less than the 1-year Professional Version for faculty ([link](#)).

³ I recommend waiting until **October 7th** to request the CMA software.

TENTATIVE SCHEDULE

MONTH	DATE	DAY	TOPIC	READINGS	ASSIGNMENT
AUG	26	TUE	Overview of course		
	28	THU	<u>Introduction: Literature review, research syntheses, and meta-analyses</u>	Cooper (2016) Ch. 1 & Table 9.1 (pp. 320-321)	
SEP	2	TUE	<u>Step 1: Formulating the problem:</u> Theoretical and conceptual variables; moderators and mediators	Cooper (2016) Ch. 2 & Table 9.2 (pp. 321-322); Baron & Kenny (1986)	
	4	THU	Work on Assignment 1 during class time		
	9	TUE	<u>Step 2: Searching the literature:</u> Populations and samples; search channels; PRISMA Flow Diagram	Cooper (2016) Ch. 3 & Table 9.3 (pp. 322-323)	Assign 1: Problem definition
	11	THU	Work on Assignment 2 during class time		
	16	TUE	<u>Step 3: Gathering information from studies:</u> Inclusion and exclusion criteria; developing a coding guide	Cooper (2016) Ch. 4 & Table 9.4 (pp. 323-324)	Assign 2: Literature search
	18	THU	Coding characteristics; Selecting and training coders; inter-coder reliability; Missing data		
	23	TUE	Unit of analysis; Correlated effects	Vevea et al. (2019)	
	25	THU	Work on Assignment 3 during class time		Assign 3: Coding sheet & guide
	30	TUE	<u>Step 4: Evaluating the quality of studies:</u> Problems in judging research quality; approaches to categorizing research methods; identifying statistical outliers	Cooper (2016) Ch. 5 & Table 9.5 (pp. 324-325)	
OCT	2	THU	Work on Assignment 4 during class time		

	7	TUE	<u>Step 5: Analyzing and integrating the outcomes of studies</u> : Measuring relationship strength; practical issues in estimating effect sizes	Cooper (2016) Ch. 6 & Table 9.6 (pp. 325-326); CMA manuals	
	9	THU	Combining study results		
	14	TUE	Confidence intervals; Analyzing variance in effect sizes across studies; Forest plots; I-square		Upload materials for Assign 4 to Teams (Assign 4a)
	16	THU	AUTUMN BREAK: NO CLASS		
	21	TUE	Work on Assignment 4 during class time		
	23	THU	Work on Assignment 4 during class time		Assign 4: Inter-coder reliability (Assign 4b)
	28	TUE	<u>Step 6: Interpreting the evidence</u> : Missing data; statistical sensitivity analysis; specification and generalization; substantive interpretation of effect sizes	Cooper (2016) Ch. 7 & Table 9.7 (p. 327); Kepes et al. (2023)	
	30	THU	Metrics that are meaningful to general audiences; When small effects are impressive	Prentice & Miller (1992)	
NOV	4	TUE	Work on Assignment 5 during class time		
	6	THU	Work on Assignment 5 during class time		Assign 5: Meta-analytic results
	11	TUE	<u>Step 7: Presenting the results</u> : Title; Abstract; Introduction; Method Results; Discussion	Cooper (2016) Ch. 8; Bem (1995); Rosenthal (1995)	
	13	THU	Sample PowerPoint presentation		
	18	TUE	Work on Assignments 6 & 7 during class time		
	20	THU	Work on Assignments 6 & 7 during class time		Assignment 6: PowerPoint presentation
	25	TUE	NO CLASS		

	27	THU	THANKSGIVING DAY: NO CLASS		
DEC	2	TUE	Class PowerPoint presentations		
	4	THU	Class PowerPoint presentations		
	9	TUE	Class PowerPoint presentations		
	17	WED	FINAL EXAM (due 5:45 PM)		Assignment 7: Final paper

Copyright Disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for educational purposes.

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (**Faculty Rule 3335-5-48.7 (B)**). For additional information, see the **Code of Student Conduct**.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the **Civil Rights Compliance Office**. (Policy: **Religious Holidays, Holy Days and Observances**).

Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling **614-292-5766**. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at **614-292-5766** and 24 hour emergency help is also available 24/7 **by dialing 988 to reach the Suicide and Crisis Lifeline**.

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <https://civilrights.osu.edu/title-ix> or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu.

Diversity

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS

status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Disability Services

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.