Term Information

Effective Term	Spring 2022

General Information

Course Bulletin Listing/Subject Area	Communication
Fiscal Unit/Academic Org	School Of Communication - D0744
College/Academic Group	Arts and Sciences
Level/Career	Graduate
Course Number/Catalog	7715
Course Title	Meta-Analysis
Transcript Abbreviation	Meta-Anaylsis
Course Description	Meta-analysis means analysis of analyses. This course provides a hands on approach to conducting a meta-analysis that 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, and (7) Presenting the results.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Seminar
Grade Roster Component	Seminar
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	
Exclusions	
Electronically Enforced	No

Cross-Listings

Cross-Listings	

Subject/CIP Code

Subject/CIP Code	09.0101
Subsidy Level	Doctoral Course
Intended Rank	Masters, Doctoral

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

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

Content Topic List

- Formulating the problem: Theoretical and conceptual variables; moderators and mediators
- Searching the literature: Populations and samples; search channels; PRISMA flow diagrams
- Gathering information from studies: Inclusion and exclusion criteria; developing a coding guide; coding characteristics; selecting and training coders; inter-coder reliability; missing data; unit of analysis; correlated effects
- Evaluating the quality of studies: Problems in judging research quality; approaches to categorizing research methods; identifying statistical outliers
- Analyzing and integrating the outcomes of studies: Measuring relationship strength; practical issues in estimating effect sizes; combining study results; confidence intervals; analyzing variance in effect sizes across studies; forest plots
- Interpreting the evidence: Missing data; statistical sensitivity analysis; specification and generalization; substantive interpretation of effect sizes; metrics that are meaningful to general audiences; when small effects are impressive
- Presenting the results: Title; abstract; introduction; method; results; discussion; PowerPoint presentations

Sought Concurrence

No

Attachments

- COMM7715 Syllabus.docx

(Syllabus. Owner: Butte,Kylie M.)

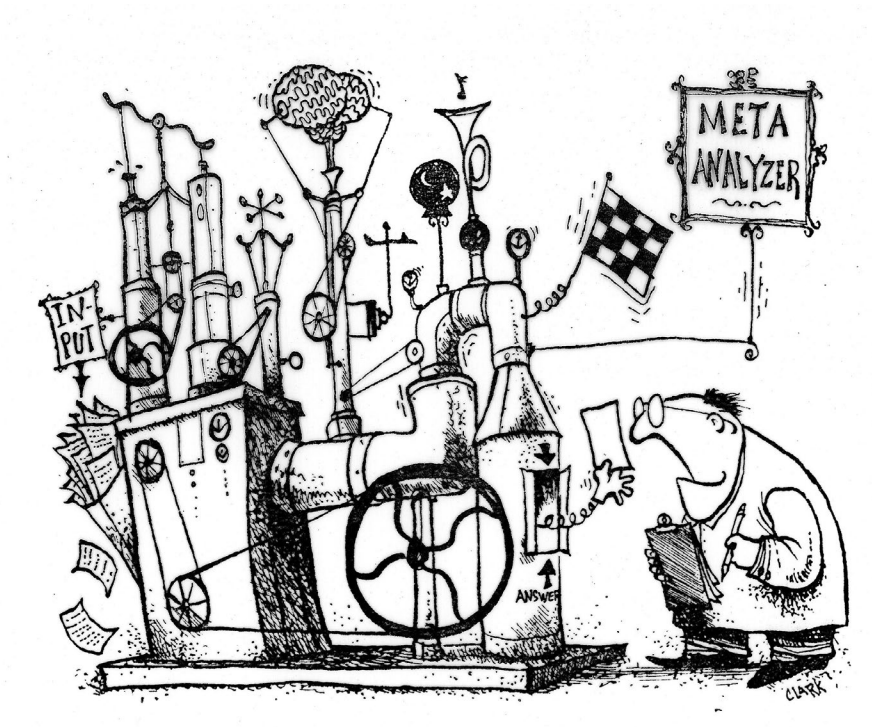
Comments

- This course has been offered under the Special Topics class number Comm 8801 for a number of years. We are submitting this course for formal approval as it's own course with it's own specific class number in hopes of drawing more interest from graduate students across campus, specifically Psychology. *(by Butte,Kylie M. on 08/05/2020 01:31 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Butte,Kylie M.	08/05/2020 02:46 PM	Submitted for Approval
Approved	Slater,Michael D	08/05/2020 03:54 PM	Unit Approval
Approved	Haddad,Deborah Moore	08/05/2020 04:57 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	08/05/2020 04:57 PM	ASCCAO Approval

– Meta-Analysis (COMM 7715) –
Spring Semester 2022
Tuesday & Thursday 2:20 – 3:40 PM
3116 Derby Hall



Professor:	Brad J. Bushman, Ph.D.
Office:	3022 Derby Hall, 154 N. Oval Mall, Columbus, OH 43210
Phone:	(614) 688 – 8779
Office hours:	Monday 8:30-11:30 AM (and by arrangement)
E-mail:	bushman.20@osu.edu
Homepage:	http://u.osu.edu/bushman.20/

Course Description

The word "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. 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.

Required Textbooks

Hunt, M. (1997). *How science takes stock: The story of meta-analysis*. New York: Russell Sage Foundation. ISBN-13: 978-0871543981; ISBN-10: 0871543982

Cooper, H. (2016). *Research synthesis and meta-analysis: A step-by-step approach* (5th edition). Thousand Oaks, CA: Sage. ISBN-13: 978-1483331157; ISBN-10: 1483331156

Recommended Textbook

American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author. ISBN-13: 978-1433805615; ISBN-10: 1433805618

Readings

I will also supplement the textbooks with readings that discuss important concepts that are not included in the textbooks. Please read the assigned readings listed on the tentative schedule BEFORE you come to class. The readings are:

Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of General Psychology*, *1*(3), 311-320. doi:10.1037/1089-2680.1.3.311

Bem, D. J. (1995). Writing a review article for Psychological Bulletin. *Psychological Bulletin*, *118*(2), 172-177. doi:10.1037/0033-2909.118.2.172

Bushman, B. J., & Wang, M. C. (2009). Vote counting methods in meta-analysis. In H. M. Cooper, L. V. Hedges, & J. C. Valentine (Eds.), *Handbook of research synthesis* (Ed. 2, pp. 207-220). New York: Russell Sage Foundation.

Kepes, S., Banks, G. C., McDaniel, M., & Whetzel, D. L. (2012). Publication bias in the organizational sciences. *Organizational Research Methods*, *15*(4), 624-662. doi:10.1177/1094428112452760

Peterson, R. A., & Brown, S. P. (2005). On the use of beta coefficients in meta-analysis. *Journal of Applied Psychology*, *90*(1), 175-181. doi:10.1037/0021-9010.90.1.175

Prentice, D. A., & Miller, D. T. (1992). When small effects are impressive. *Psychological Bulletin*, *112*(1), 160-164. doi:10.1037/0033-2909.112.1.160

Rosenthal, R. (1995). Writing meta-analytic reviews. *Psychological Bulletin*, *118*(2), 183-192. doi:10.1037/0033-2909.118.2.183

Software

In this class we will use Comprehensive Meta-Analysis software.
http://www.meta-analysis.com/

Comprehensive Meta-Analysis (CMA) software has been developed over the past 25 years by a team of meta-analysis experts with funding from several federal grants. The software is powerful, yet user friendly. It will work on either a PC or Macintosh computer. On Mac computers, CMA requires PC software (e.g., Parallels, CrossOver Mac, Virtual PC for Mac, VirtualBox, Boot Camp).

There is a FREE 10 days/10 trials CMA license. However, the students who take this class are eligible for a FREE 4-month license. You can email the software developer to get an unlock code, <codes@meta-analysis.com>. In the license manager pop-up, click on "I want to get an unlock code," and send him the 7-digit number displayed. Be sure to mention your name and that you are a student in my class. If you later want to purchase a 1-year license, there is a student discount.

- Lite version: $125
- Standard version: $175
- Professional version: $195

Grading

There will be no exams. Grades will be based on seven assignments. All assignments are due at 11:59 PM. 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, although a curve might be applied if grades are too low:

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%	

TENTATIVE SCHEDULE

MONTH	DATE	DAY	TOPIC	READINGS	ASSIGNMENT
AUG	21	TUE	Overview of course; introduction to meta-analysis; two types of literature reviews; increasing use of meta-analysis; two approaches to conducting a meta-analysis	Hunt (1997) book Cooper (2016) Ch. 1 & Table 9.1 (pp. 320-321)	
	23	THU	Step 1: Formulating the problem: Theoretical and conceptual variables; moderators and mediators	Cooper (2016) Ch. 2 & Table 9.2 (pp. 321-322)	
	28	TUE	Work on Assignment 1		
	30	THU	Step 2: Searching the literature: Populations and samples; search channels; PRISMA Flow Diagram	Cooper (2016) Ch. 3 & Table 9.3 (pp. 322-323)	Assign 1: Problem definition
SEP	4	TUE	Work on Assignment 2		
	6	THU	Step 3: Gathering information from studies: inclusion and exclusion criteria; developing a coding guide	Cooper (2016) Ch. 4 & Table 9.4 (pp. 323-324)	Assign 2: Literature search
	11	TUE	Coding characteristics; Selecting and training coders; inter-coder reliability; Missing data		
	13	THU	Unit of analysis; Correlated effects		
	18	TUE	Work on Assignment 3		Assign 3: Coding sheet & guide
	20	THU	Step 4: Evaluating the quality of studies: Problems in judging research quality; approaches to categorizing research methods; identifying statistical outliers	Cooper (2016) Ch. 5 & Table 9.5 (pp. 324-325)	
	25	TUE	Work on Assignment 4		

	27	THU	Step 5: Analyzing and integrating the outcomes of studies: Measuring relationship strength; practical issues in estimating effect sizes	Cooper (2016) Ch. 6 & Table 9.6 (pp. 325-326); CMA manual	
OCT	2	TUE	Combining study results		
	4	THU	Confidence intervals; Analyzing variance in effect sizes across studies		
	9	TUE	Forest plots; I-square; Work on Assignment 4		Upload materials for Assign 4 to BuckeyeBox
	11	**THU**	**AUTUMN BREAK: NO CLASS**		
	16	TUE	Work on Assignment 4		Assign 4: Inter-coder reliability
	18	THU	Step 6: Interpreting the evidence: Missing data; statistical sensitivity analysis; specification and generalization; substantive interpretation of effect sizes	Cooper (2016) Ch. 7 & Table 9.7 (p. 327)	
	23	TUE	Metrics that are meaningful to general audiences	Prentice & Miller (1992)	
	25	THU	When small effects are impressive; Sample PowerPoint presentation		
	30	TUE	Work on Assignment 5		
NOV	1	THU	Work on Assignment 5		
	6	TUE	Work on Assignment 5		
	8	THU	Work on Assignment 5		Assign 5: Meta-analytic results
	13	TUE	Step 7: Presenting the results: Title; Abstract; Introduction; Method Results; Discussion	Cooper (2016) Ch. 8; Bem (1995); Rosenthal (1995)	
	15	THU	Work on Assignment 6		
	20	TUE	Work on Assignment 6		Assignment 6: PowerPoint presentation

	22	**THU**	**THANKSGIVING: NO CLASS**		
	27	TUE	Class PowerPoint presentations		
	29	THU	Class PowerPoint presentations		
DEC	4	TUE	Class PowerPoint presentations		
	7	**FRI**	**FINAL EXAM**		Assignment 7: Final due by 5:45 PM

Sexual misconduct/relationship violence: *"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 http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu"*

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 3335-5-487). For additional information, see the **Code of Student Conduct** at http://studentconduct.osu.edu"*

Disability Services: *"Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 098 Baker Hall, 113 W. 12th Avenue; telephone 292-3307, TDD 292-0901, VRS 429-1334; http://www.ods.ohio-state.edu/*