

WESTERN UNIVERSITY
LONDON CANADA

Department of Psychology
Psychology 9631a

Fall 2022

Research Methods in I/O Psychology

Instructor: Dr. J. Meyer
Office: 8411 SSC
Telephone: 519-661-3679
E-mail: meyer@uwo.ca

Enrollment Restrictions

Enrollment in this course is restricted to graduate students in Department of Psychology, I/O graduate program, as well as any student that has obtained special permission to enroll in this course from the course instructor as well as the Graduate Chair (or equivalent) from the student's home program.

Course Description:

The purpose of this course is to familiarize students with the research methods used in the science and practice of industrial and organizational psychology. We will begin with a discussion of how to develop research questions and to select the research methodology best suited to answering these questions. We will then discuss specific research methods and data analytic strategies use by I/O psychologists. Discussion will focus on assumptions underlying the use of these methods and strategies, and on their strengths and limitations. Upon completion of the course, students should be in a better position to critically evaluate research in which these methods have been applied and to assess whether, and how, they can be applied in their own research.

Course Format / Location

Face-to-face
Rm. 8438/40
Tuesdays, 1:00 – 4:00pm

Course Learning Outcomes/Objectives

Upon completion of this course, students should:

1. Be familiar with the research method commonly used in the science and practice of I/O psychology.
2. Be able to develop research questions and identify the methods and analytic techniques best suited to addressing those questions.
3. Understand the strengths and limitations of the major methods and analytic techniques used in I/O psychology.
4. Be able to critically evaluate research in I/O psychology and its implications for theory and application.

Course Materials:

See Course Schedule below for a list of required and optional readings. Course readings will be made available on-line through the course website on OWL.

Methods of Evaluation

Grades will be based on participation in classroom discussion (20%), short written reports and student-led discussion of special issues (20%), a written research proposal (50%), and an in-class presentation of the proposal (10%).

Participation. Students are required to complete assigned readings *prior to* the class in which they are discussed, and to participate actively in discussion. Discussion questions or exercises (e.g., critiques of research articles) may be assigned one week in advance and students will be called upon to share their thoughts on these questions.

Written Reports and Student-led Discussion. Students will be required to write *two* short (800 word) reports. For one of these reports, the student will also be required to lead an in-class discussion of the issue (i.e., provide a brief overview of the issue and facilitate discussion). The discussion should last approximately 20 minutes. The first written report is due on **Monday, September 19 by 12 noon** – more detail on the assignment will be provided in class.

The second report will address one of the special issues to be discussed between October 4 and November 8. The special issues will be assigned in advance and students will be required to submit a short written report and lead the in-class discussion. A list of topics will be provided in class and will be assigned on September 20. **All reports must be submitted by 12 noon on the Monday before class.** All reports should be submitted by email to the instructor at meyer@uwo.ca. Late reports will be penalized 10%; reports will not be accepted after the class in which the issue is discussed.

Sept. 20 Getting Started: Research Questions, Objectives, Standards, & Ethics

- *Sackett, P.R. & Larson, J.R. (1990). Research strategies and tactics in industrial and organizational psychology. In M.D. Dunnette and L.M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd Edition, Volume 1, pp. 419-490). Palo Alto, CA: Consulting Psychologists Press, Inc. **(Read pp. 422-428)**
- *Stone-Romero, E.F. (2011). Research strategies in industrial and organizational psychology: nonexperimental, quasi-experimental, and randomized experimental research in special purpose and nonspecial purpose setting. In S. Zedeck (Ed.) *APA Handbook of industrial and organizational psychology* (Vol. 1, pp. 37-72). Washington, DC: APA. **(Read pp. 37-48)**
- *Aquinas, H., & Henle, C.A. (2002). Ethics in research. In S.G. Rogelberg, *Handbook of research methods in industrial and organizational psychology* (pp. 34-52). Malden, MA: Blackwell Publishers Inc.
- *Hambrick, D.C. (2007). The field of management's devotion to theory: Too much of a good thing? *Academy of Management Journal*, 50(6), 1346-1352.

Optional.

- *Banks, G.C., Field, J.G., Oswald, F.L., O'Boyle, E.H., Landis, R.S., Rupp, D.E., & Rogelberg, S.G., (2018). Answers to 18 questions about open science practices. *Journal of Business Research*.

Sept. 20 Concept Development and Measurement

- *Podsakoff, P.M., MacKenzie, S.B., & Podsakoff, N.P. (2016). Recommendations for creating better concept definitions in the organizational, behavioral, and social sciences. *Organizational Research Methods*, 19, 159-203. **(Focus on pp. 159-169; Skim pp. 169-188).**
- *De Champlain, A.F. (2010). A primer on classical test theory and item response theory for assessment in medical education. *Medical Education*, 44, 109-117.
- *Hinkin, T.R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.
- *Cortina, J. M., Sheng, Z., Keener, S. K., Keeler, K. R., Grubb, L. K., Schmitt, N., Tonidandel, S., Summerville, K. M., Heggstad, E. D., & Banks, G. C. (2020). From alpha to omega and beyond! A look at the past, present, and (possible) future of psychometric soundness in the *Journal of Applied*

Psychology. *Journal of Applied Psychology*, 105(12), 1351-1381.
<https://doi.org/10.1037/apl0000815>

Optional.

- *Shafer, J.A., DeGeest, & Li, A. (2016). Tackling the problem of construct proliferation: A guide to assessing discriminant validity of conceptually related constructs. *Organizational Research Methods*, 19(1), 80-110.
- *Newman, D.A., Harrison, D.A., Carpenter, N.C., & Rariden, S.M. (2016). Construct Mixology: Forming new management constructs or combining old ones. *The Academy of Management Annals*, 10(1), 943-995.

Oct. 4 Experimental and Quasi-Experimental Designs

- *Stone-Romero, E.F. (2011). Research strategies in industrial and organizational psychology: nonexperimental, quasi-experimental, and randomized experimental research in special purpose and nonspecial purpose setting. In S. Zedeck (Ed.) *APA Handbook of industrial and organizational psychology* (Vol. 1, pp. 37-72). Washington, DC: APA. **(Read pp. 48-64)**
- *Eden, D. (2016). Field experiments in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 91-122.

Optional

- *Highhouse, S. (2009). Designing experiments that generalize. *Organizational Research Methods*, 12(3), 554-566.
- *Grant, A.M. & Wall, T.D. (2009). The neglected science and art of quasi-experimentation: Why-to, when-to, and how-to advice for organizational researchers. *Organizational Research Methods*, 12(4), 653-686. **(Read pp. 653-672).**

Oct. 11 Exploratory and Confirmatory Factor Analysis

- *Henson, R.K., & Roberts, J.K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological Measurement*, 66(3), 393-416. **(Focus on pp 393-401).**
- *Williams, L.J., Vandenberg, R.J., & Edwards, J.R. (2009). Structural equation modelling in management research. *The Academy of Management Annals*, 3, 543-604. **(Read pp. 543-565)**

- *Howard, J.L., Gagné, M., Morin, A.J.S., & Forest, J. (2016). Using bifactor exploratory structural equation modelling to test a continuum structure of motivation. *Journal of Management*, 2018, 2638-2664. (**Focus on pp. 2641-2645; skim rest**)

Oct. 18 Multiple Regression and Structural Equation Modeling

- **Hayes, A.F. (2013). Introduction to mediation, moderation, and conditional process analysis. New York: The Guildford Press. (**Read pp. 59-83; Those not familiar with regression analysis might find it helpful to read pp. 23-58 on simple linear regression**)
- *Williams, L.J., Vandenberg, R.J., & Edwards, J.R. (2009). Structural equation modelling in management research. *The Academy of Management Annals*, 3, 543-604. (**Read pp. 565-573**)

Optional

- *Cortina, J.M., Green, J.P., Keeler, K.R., & Vandenberg, R.J. (2017). Degrees of freedom in SEM: Are we testing the models we claim to test. *Organizational Research Methods*, 20(3), 350-378.

Oct. 25 Testing for Mediation and Moderation

- *Mathieu, J.E., DeShon, J.E., & Bergh, D.D. (2008). Mediation influences in organizational research: Then, now, beyond. *Organizational Research Methods*, 11, 203-223.
- *Murphy, K.R., & Russell, C.J. (2017). Mend it or end it: Redirecting the search for interactions the organizational sciences. *Organizational Research Methods*, 20(4), 549-573.

Optional

- **Hayes, A.F. (2013). Introduction to mediation, moderation, and conditional process analysis. New York: The Guildford Press. (**Read Chs. 4 and 7**)
- *Lehmann-Wilkenbrock, N., & Allen, J.A. (2018). Modeling temporal interaction dynamics in organizational settings. *Journal of Business Psychology*, 33, 325-344.

Nov. 1 Reading Week

Nov. 8 Advanced Multivariate Analytic Strategies

- *Williams, L.J., Vandenberg, R.J., & Edwards, J.R. (2009). Structural equation modelling in management research. *The Academy of Management Annals*, 3, 543-604. **(Read pp. 573-588)**
- *Hoffman, D.A. (2002). Issues in multilevel research: Theory development, measurement, and analysis. In S.G. Rogelberg (Ed.), *Handbook of research methods in industrial and organizational psychology* (pp. 247-274). Malden, MA: Blackwell Publishers Inc.

Optional

- *Blies, P.D., Maltarich, M.A., & Hendricks, J.L. (2018). Back to basics with mixed-effects models: Nine take-away points. *Journal of Business Psychology*, 33, 1-23.

Mar. 10 Person-centred Research Methods and Analyses

- *Meyer, J.P., & Morin, J.S. (2016). A person-centered approach to commitment research: Theory, research, and methodology. *Journal of Organizational Behavior*, 37, 584-612. **(Read pp. 597-607, skim rest)**

Optional

- *Ferguson, S.L., Moore, E.W.G., & Hull, D.M. (2019). Finding latent groups in observed data: A primer on latent profile analysis in Mplus for applied researchers. *International Journal of Behavioral Development*, 1-11. DOI: 10.1177/0165025419881721

Nov. 22 Meta-analysis and Qualitative Methods

- *Bobko, P., & Stone-Romero, E. F. (1998). Meta-analysis may be another useful research tool, but it is not a panacea. In G.R. Ferris (Ed.), *Research in personnel and human resources management* (Vol. 16, pp.359-397). Stamford, CT: JAI Press.
- *Schmidt, F. L. (1992). What do data really mean? Research findings, meta-analysis, and cumulative knowledge in psychology. *American Psychologist*, 47, 1173-1181.
- *Lee, T.W., Mitchell, T.R., & Harman, W.S. (2011). Qualitative research

strategies in industrial and organizational psychology. In S. Zedeck (Ed.) *APA handbook of industrial and organizational psychology* (Vol. 1, pp. 73-83). Washington, DC: APA.

Optional

- *Brannick, M.T., Potter, S.M., Benitez, B., & Morris, S.B. (2019). Bias and precision of alternative estimators in meta-analysis: Benefits of blending Schmidt-Hunter and Hedges approaches. *Organizational Research Methods*, 22(2), 490-514.
- *Cheung, M.W.-L. (2018). Some reflections on combining meta-analysis and structural equation modeling. *Research Synthesis Methods*, 10, 15-22.
- *Rynes, S., & Gephart Jr., R.P. Qualitative research and the “Academy of Management Journal”. *Academy of Management Journal*, 47(4), 454-462.
- *Molina-Axorin, J.F., Bergh, D.D., Corley, K.G., & Ketchen Jr., D.J. (2017). Mixed methods in organizational Sciences: Taking stock and moving forward. *Organizational Research Methods*, 20(2), 179-192.

Nov. 29 - Student Presentations
Dec. 6

Statement on Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Health/Wellness Services

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

Accessible Education Western (AEW)

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW), a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.