



BUSINESS SCHOOL

Course Outline 2017
BUSINESS 711: ADVANCED QUANTITATIVE RESEARCH METHODS
(15 POINTS)
SEMESTER 2

Course Prescription

An advanced seminar on recent developments in the application of quantitative methods in business research. Prepares students for advanced research.

Prerequisite: BUSINESS 710 and 704, or permission of the Department.

Programme and Course Advice

The course takes an in-depth look at the conceptual and methodological issues in behavioural research. This is an advanced course intended for students enrolled in the Ph.D. programmes.

Goals of the Course

To introduce Ph.D. students to the underlying theory and current best practices in quantitative methods for behavioural research. A major purpose of this course is to help students to develop a thorough and formal research (dissertation) proposal.

Learning Outcomes

By the end of this course it is expected that the student will be able to:

1. understand the underlying theory in quantitative methods for organizational research;
2. understand the current best practices in quantitative methods for organizational research;
3. apply knowledge of quantitative research methods to evaluate the research of others critically;
4. prepare and present a thorough and formal research proposal with appropriate structure, research question, hypothesis, sampling, measurements and data analysis approaches to address the hypothesis and research question.

Teaching Staff

Gordon Cheung

Office: Owen G Glenn Building, Level 4, Room 469

Tel: 09 373 7599 Ext. 89204

Email: Gordon.cheung@auckland.ac.nz

Content Outline

- Basic Concepts in Research
- Validity issues in Experimental Design and Quasi-Experimentation
- Control Variables
- Measurement and Questionnaire Design
- Significance Tests and Statistical Power
- Cross-Cultural Research
- Moderators and Mediators
- Testing Interaction Effects
- Introduction to Meta-Analysis
- Introduction to Multi-Level Research and Hierarchical Linear Models
- More Statistical and Methodological Myths and Urban Legends

Learning and Teaching

To achieve the objectives of the course a variety of teaching approaches will be utilised including lectures, class discussions, written assignments, and presentations. The class typically meets for three hours a week. Students are expected to use at least ten additional hours each week reading and preparing for class. Active participation is essential, and students will be expected to master material assigned in readings, presented in class lectures, discussions, presentations, assignments and in their research proposals.

Reading List

Basic Concepts in Research

Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, 14, 496-515.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2016). Recommendations for creating better concept definitions in the organizational, behavioural, and social sciences. *Organizational Research Methods*, 19(2), 159-203. DOI: 10.1177/1094428115624965

Sparrowe, R. T. & Mayer, K. J. (2011). From the editors – Publishing in AMJ – Part 4: Grounding hypotheses. *Academy of Management Journal*, 54, 1098 – 1102.

Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490-495.

Statistical and Methodological Issues in Organizational Research

Green, J. P., Tonidandel, S. & Cortina, J. M. (2016). Getting through the gate: Statistical and methodological issues raised in the reviewing process. *Organizational Research Methods*, 19(3), 402-432. DOI: 10.1177/1094428116631417.

Measurement & Questionnaire Design

Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4: 62-83.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.

Ree, M. E., & Carretta, T. R. (2006). The Role of Measurement Error in Familiar Statistics. *Organizational Research Methods*, 9, 99 - 112.

Control Variables

Atinc, G., Simmering, M. J., & Kroll, M. J. (2012). Control variable use and reporting in macro and micro management research. *Organizational Research Methods*, 15(1), 57-74. DOI: 10.1177/1094428110397773.

Bernerth, J. B., & Aguinis, H. (2016) A critical review and best practice recommendations for control variable usage. *Personnel Psychology*, 69, 229-283.

Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14: 287-305.

Significance Tests & Statistical Power

Austin, J. T., Boyle, K. A., Lualhati, J. C. (1998). Statistical conclusion validity for organizational science researchers: A review. *Organizational Research Methods*, 1, 164-208.

Cashen, L. H., & Geiger, S. W. (2004). Statistical power and the testing of null hypotheses: A review of contemporary management research and recommendations for future studies. *Organizational Research Methods*, 7, 151-167.

Cortina, J. M., & Folger, R. G. (1998). When is it acceptable to accept a null hypothesis: No way, Jose? *Organizational Research Methods*, 1, 334-350.

Cross-cultural research

Aycan, Z. (2000). Cross-cultural industrial and organizational psychology: Contributions, past developments, and future directions. *Journal of Cross-Cultural Psychology*, 31(1), 110-128.

Peng, M. W. (2004). Identifying the big question in international business research. *Journal of International Business Studies*, 35, 99-108.

Schaffer, B. S., & Riordan, C. M. (2003). A review of cross-cultural methodologies for organizational research: A best practices approach. *Organizational Research Methods*, 6, 169-215.

Moderators and Mediators

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, 1173-1182.

- James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods, 9*: 233-244.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods and prescriptions. *Multivariate Behavioral Research, 42*: 185-227.

Testing Interaction Effects

- Aguinis, H. (2002). Estimation of interaction effects in organization studies. *Organizational Research Methods, 5*, 207-211.
- Aguinis, H., & Gottfredson, R.K. (2010). Best-practice recommendations for estimating interaction effects using moderated multiple regression. *Journal of Organizational Behavior, 31*, 776-786.
- Villa, J. R., Howell, J. P., Dorfman, P. W., & Daniel, D. L. (2003). Problems with detecting moderators in leadership research using moderated multiple regression. *Leadership Quarterly, 14*, 3-23

Introduction to Meta-Analysis

- Aguinis, H., Pierce, C. A., Bosco, F. A., Dalton, D. R., & Dalton, C. M. (2011). Debunking myths and urban legends about meta-analysis. *Organizational Research Methods, 14*: 306-331.
- Aguinis, H., Gottfredson, R.K., & Wright, T.A. (2011). Best-practice recommendations for estimating interaction effects using meta-analysis. *Journal of Organizational Behavior, 32*: 1033-1043.
- Wolf, F. M. (1986). *Meta-analysis: quantitative methods for research synthesis*. (Sage University Paper series in Quantitative Applications in the Social Sciences, series no. 07-059). Newbury Park, CA: Sage.

Introduction to Multi-level Research and Hierarchical Linear Models

- Hofmann, D. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management, 23*: 723-744.
- Klein, K., & Kozlowski, S. W. (2000). From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organizational Research Methods, 3*: 211-236.
- Preacher, K. J., Zyphur, M. J., Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods, 15*(3), 209-233.

More Statistical and Methodological Myths and Urban Legends

- Lance, C., Butts, M. M., & Michels, L.C. (2006). The source of four commonly reported cutoff criteria: What did they really say? *Organizational Research Methods, 9*: 202-220.
- Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods, 17*(4), 372-411. DOI: 10.1177/1094428114548590.
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods, 9*, 221-232.

Course Schedule

Date	Topic/Question
Week 1	Basic Concepts in Research
Week 1	Statistical and Methodological Issues in Organizational Research
Week 2	Measurement and Questionnaire Design
Week 2	Control Variables
Week 3	Significance Tests and Statistical Power
Week 3	Cross-Cultural Research
Week 4	Moderators and Mediators
Week 4	Testing Interaction Effects
Week 5	Introduction to Meta-Analysis
Week 5	<i>Feedback on Research Proposal</i>
Week 6	Introduction to Multi-Level Research and Hierarchical Linear Models
Week 6	More Statistical and Methodological Myths and Urban Legends

Assessment

Participation	20%
Research Proposal	50%
Take Home Test	30%

Learning Outcome	Participation	Research proposal	Final Examination
1	X	X	X
2	X	X	X
3	X	X	X
4		X	

Participation (20%)

Students are expected to have read all the reading materials before coming to the class. They are also supposed to actively participate in the class discussions.

Grades will be determined by an evaluation of student performance by the instructor. The quality of contributions that will be monitored. It should be noted that students must

contribute actively in discussions to receive passing grades for participation. The active contribution will be assessed on quality, not quantity. Active participation involves:

- Being fully prepared;
- Showing engagement with the material;
- Offering insightful comments and questions;
- Building on others' contributions;
- Giving constructive criticism of others' contributions;
- Contributing to the shaping of the discussion;
- Integrating what others have said;
- Effective and brief communication

Research Proposal (50%)

(First draft (20%) due on 22 August, Final proposal (30%) due on 7 September)

A major purpose of this class is to help you develop a thorough and formal research (dissertation) proposal. In the proposal, you'll design an empirical investigation in which you test conceptual or substantive hypotheses that interest you. The hypotheses can deal with accounting, marketing, information systems, or management theories – whatever your discipline is. The hypotheses must reflect that your study is a behavioral study, which involves constructs such as attitudes, perceptions, values, personalities, behavioral intentions and behaviors. The hypotheses must be based on a careful, exhaustive review and analysis of published literature. That analysis will also contain a comprehensive methodological critique of existing literature using the principals we cover in class.

Proposals should include traditional *Literature Review*, *Conceptual Analysis*, and *Hypotheses* chapters. Your proposal must also contain a complete *Methods* chapter, which is typical of a dissertation proposal. This chapter must include all of the important choices you made about how to conduct your research, and the corresponding rationales for those choices. It must also include most of the details of your proposal procedure. The methods should be spelled out so clearly that another graduate student could pick up your proposal and know how to carry out your research. Following the *Methods*, your proposal must contain an *Analysis* chapter as a substitute for the typical *Results* chapter. In this chapter, you should carefully describe how you will analyze the data from your research design in a way that clearly tests your hypotheses.

All proposals must be prepared according to the dissertation format prescribed by the Graduate School. You may also refer to the *American Psychological Association (APA) Publication Manual, 7th Edition*, or by the Style Guide for the Academy of Management. The Academy Style Guide is at the back of the first issues of *Academy of Management Journal* in any of the past few years. The text of the proposal (i.e., not counting tables, figures, and appendices) should not exceed 20 pages of double-spaced, Times New Roman 12-pitch font, with 1-inch margin on each side.

You will receive comments from me on the first draft of your submission. My evaluations of your submission will largely follow the *Academy of Management Journal's* Reviewer

Evaluation Form (<http://amj.aom.org/site/misc/ReviewerEvaluationForm.pdf>). Then you'll have about 2 weeks to revise and resubmit your submission. When you hand in your final submission, you need to include a summary of changes you have made to your submission in response to each of my comments. This process is simulating the journal paper submission process that you will encounter in your future academic career.

Take Home Test (30%) (8 September)

The take home test is a review of a published article. Students will utilize what they have learnt from the course to review and criticize a given article. It will be a take home test and students will have 24 hours to submit the review report.

Academic Integrity

Attention is drawn to University policy and regulations on honesty and integrity in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <https://www.auckland.ac.nz/en/about/learning-and-teaching/policies-guidelines-and-procedures/academic-integrity-info-for-students/about-academic-integrity.html>

Students are required to submit a statement that they are aware of these policies, regulations, guidelines and procedures with each version of the research proposal.

Feedback

Feedback will be sought at the end of the course. Any other feedback about the course can be given to the instructor at any time either face to face, by email or by anonymously placing feedback in the instructor's letter box.