



Course title: Experimental Research Design

Course unit code: PhD_ERD

Type of course: Elective doctoral programme course

Number of credits allocated: 6 ECTS

Name of lecturer: Prof. dr. Bob Fennis

Objectives of the course:

This high-density, 3-day seminar focuses on the design, data-collection, analysis and write-up of experimental research. It is geared towards marketing (because that's my field of work), but can be applied to other empirical fields as well. It is decidedly practical in nature, giving participants a state-of-the-art overview of the approaches and methods used in the development and analysis of experimental designs, while providing many opportunities for methodological practice. In addition, the course is aimed at teaching and practicing advanced, but hands-on research skills starting with generating interesting and testable hypotheses, via designing and running studies in the lab to analyzing experimental data and reporting them in a research paper.

The course is aimed at PhD students and research staff with a background in marketing, consumer behavior, management, HRM/OB or psychology and with a research agenda that they wish to pursue (needed for the exercises).

In this seminar, a highly interactive workshop format is adopted where we discuss and practice each of the following stages in experimentation, from research question to research paper:

1. *Introduction:* To experiment or not to experiment?
 - a. Type of questions: causality vs correlations
 - b. Types of effects
 - c. Generating testable –and interesting- hypotheses
2. *Overview and Design:* What kind of experiment?
 - a. Between participant designs
 - b. Within participant designs
 - c. Mixed designs
3. *Independent and Dependent Variables:* Operationalizations
 - a. Tasks, paradigms and measures
 - b. Varying IV's and moderators: manipulating states, measuring traits
 - c. Measuring DV's and mediators; (explicit vs. implicit measures)
4. *Procedure:* Conducting experiments in the lab or field:
 - a. Paper-and-pencil studies
 - b. programming experiments in Authorware, Qualtrics, Medialab or E-Prime
 - c. Collecting the data from the lab or field
5. *Analysis and Results*
 - a. Importing the data in SPSS

- b. Testing your hypotheses: Moderation, mediation and beyond (i.e., testing mediated moderation/moderated mediation)

6. *General Discussion:*

- a. From results to publications
- b. Pitfalls and tips in pursuing a focused research program

Requirements and evaluation:

Written assignment 100%

One week after the final day of the workshop students must hand in a research proposal (no more than 3 full text pages), which should include:

- a) Hypothesis
- b) Design
- c) Manipulation of IV's
- d) Measurement of DV's type of analysis
- e) Interpretation of results

Course content:

Schedule in detail:

The schedule for each session in this 3-day workshop is pretty structured, with a brief intro (by me, but of course interspersed by your questions, comments and suggestions), a practice session, and a round of presentation, feedback and discussion. Exercises will be introduced and elaborated during the workshop, so they are not listed here. Below you will find a detailed schedule for each session plus recommended reading per session that we will discuss. I have included each days' schedule (although it appears a little repetitive) to enable you to drop in or drop out sessions at convenient times (i.e., in between sessions or during breaks/lunches). Of course, it makes sense to delve into the material before the start of the workshop to gain the most of it.

Session 1	Readings
<p>Introduction: To experiment or not to experiment?</p> <p>Overview and Design: What kind of experiment?</p>	<p>Kardes, F.R. (1996). In defense of experimental consumer psychology. <i>Journal of Consumer Psychology</i>, 5(3), 279-296.</p> <p><i>Great paper that summarizes and 'neutralizes' various common objections and criticisms to experimentation in marketing in general and consumer psychology in particular</i></p> <p>McGuire, W.J. (1997). Creative hypothesis generating in psychology: Some useful heuristics. <i>Annual Review of Psychology</i>, 48, 1-30.</p> <p><i>This paper lists a large set of very useful heuristics (rules of thumb) to come up with interesting and testable hypotheses, of course not limited to psychology but also applicable in other spheres of marketing</i></p>

	<p><i>science</i></p> <p>Petty, R.E. The research script: One researcher's view. In F. T. Leong & J. M. Austin (Eds.), <i>The psychology research handbook: A guide for graduate students and research assistants</i> (2nd ed., pp. 465-480). Thousand Oaks, CA: Sage Publications.</p> <p><i>Chapter with some tips and tricks from the grand old master of the ELM...not just for graduate students and research assistants, I'd say</i></p>
Session 2	Readings
<p><i>Independent and Dependent Variables: Operationalizations</i></p> <p><i>Procedure: Conducting experiments in the lab:</i></p>	<p>Nosek, B.A., Hawkins, C.B., & Frazier, R.S. (2011). Implicit social cognition: from measures to mechanisms. <i>Trends in Cognitive Sciences</i>, 15, 152-159.</p> <p><i>Overview of implicit tasks and measures, the use of which has seen a tremendous surge in marketing and consumer science the last 15 years or so.</i></p>
Session 3	Readings
<p><i>Analysis and Results</i></p> <p><i>General Discussion</i></p>	<p>Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. <i>Journal of Personality and Social Psychology</i>, 51 (6), 1173-1182.</p> <p><i>The most widely cited paper on mediation and moderation ever, both within and beyond our discipline. Most journals still require proof of mediation via the "Baron and Kenny approach"</i></p> <p>Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005). When moderation is mediated and mediation is moderated. <i>Journal of Personality and Social Psychology</i>, 89 (6), 852-863.</p> <p><i>The title says it all: one set of regression equations to decide whether you have either mediated moderation or moderated mediation</i></p> <p>Spencer, S.J., Zanna, M.P., & Fong, G.T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. <i>Journal of Personality and Social Psychology</i>, 89 (6), 845-851.</p> <p><i>A tempting alternative when empirically testing for mediation is not an option</i></p>

	<p>Zhao, X., Lynch, J.G., & J Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. <i>Journal of Consumer Research</i>, 37, 197-206. <i>Very helpful paper to decide whether you have mediation, if so, what type, and how to test it. Also presents a viable alternative to the –more conservative- Baron & Kenny approach</i></p> <p>Bem, D.J. (2004). Writing the empirical journal article. In J.M. Darley, M.P. Zanna, & H.L. Roediger III (Eds.), <i>The compleat academic: A career guide</i> (2nd ed., pp. 185-221). Washington, DC: APA. <i>Chapter full of useful tips to write up your research</i></p> <p>Simons, D. (2012). Musings on writing. Retrieved at http://www.dansimons.com/resources/writing_tips.html. <i>Good set of practical tools for writing</i></p>
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Literature:

- Kardes, F.R. (1996). In defense of experimental consumer psychology. *Journal of Consumer Psychology*, 5(3), 279-296.
- McGuire, W.J. (1997). Creative hypothesis generating in psychology: Some useful heuristics. *Annual Review of Psychology*, 48, 1-30.
- Petty, R.E. The research script: One researcher's view. In F. T. Leong & J. M. Austin (Eds.), *The psychology research handbook: A guide for graduate students and research assistants* (2nd ed., pp. 465-480). Thousand Oaks, CA: Sage Publications.
- Nosek, B.A., Hawkins, C.B., & Frazier, R.S. (2011). Implicit social cognition: from measures to mechanisms. *Trends in Cognitive Sciences*, 15, 152-159.
- 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.
- Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89 (6), 852-863.
- Spencer, S.J., Zanna, M.P., & Fong, G.T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes.
- Zhao, X., Lynch, J.G., & J Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37, 197-206.
- Bem, D.J. (2004). Writing the empirical journal article. In J.M. Darley, M.P. Zanna, & H.L. Roediger III (Eds.), *The compleat academic: A career guide* (2nd ed., pp. 185-221). Washington, DC: APA.
- Simons, D. (2012). Musings on writing. Retrieved at http://www.dansimons.com/resources/writing_tips.html.