## **RESEARCH METHODS**

## LONDON SCHOOL OF COMMERCE

## **INTRODUCTION**

## **Profs Peter Abell and Robin Matthews**

The research methods programme is concerned (1) **theory** (how you propose to explain some phenomenon in the world) (2) **evidence** (identifying the **data** that will support, verify or falsify you theory or explanation), (3) **methodology** (deciding on appropriate methods that transforms data into evidence).

#### Conceptual model: the stages of constructing a conceptual model are

- 1. Define your research problem (or question); what is your original intuition?
- 2. Relate it to a paradigm (find relevant literature in journals and other media sources, associated with the problem (review relevant literature); are there gaps? Is there an opportunity for a new area of application?
- 3. Design a conceptual model (theory)
- 4. Identify key assumptions that the model makes about the world (what they include and exclude from consideration

#### Data and evidence: deciding

- 5. How can the model (its explanations, predictions) may be tested?
- 6. What data is relevant, where it is and how much data is required?

#### Methodology: turning data into evidence

- 7. Decide on methods of analysing the data (what quantitative or qualitative techniques are appropriate).
- 8. How does it relate to the conceptual model and the research problem (or question)?
- 9. Decide on the extent to which it supports, verifies or does not falsify your theory and
- 10. The extent to which the explanation(s) in your theory justify the original paradigm (embedded in the literature) or justifies a new or at least a different paradigm).

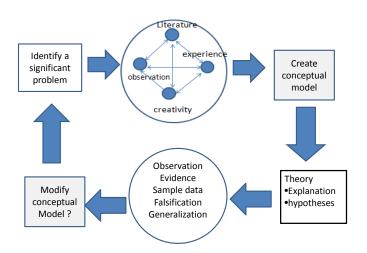
# Originality and feasibility will your work

- 11. Add to knowledge providing new explanations or theory or provide a new application of existing theory.
- 12. Can stages 1-11 be done in time?

Typically carrying out the stages above is an iterative process, described in the diagram below of conjecture, refutation adapting the original conjecture or abandoning it in favour of a better one; better meaning a better explanation of the phenomena in question. Sometimes the process is described as conjecture and refutation, sometimes as deconstruction. The research methods programme is the first step.

At the end of the session you complete and assignment consisting of

- a. A draft of your research proposal form (RDP)
- b. A short presentation summarizing explaining your methodological approach to your research problem.



The process is done via the research methods course and with the help of your supervisor and director of studies. The research methods course (6 day seminars - 3 days in your first month of study and three days in the second) is the first step.

#### Assignment

At the end of the research methods programme should prepare a draft of your research degree proposal (RDP) and submit this to Mr Joseph Fitzsimmons on (DATE)

You should also prepare a short presentation (3 slides) for day 6 of the research methods course.

Over the first year you will develop your work further and turn the draft into the full research proposal; a transfer document considered by the research committee.

# PREPARATORY WORK FOR THE RESEARCH METHODS SESSIONS

The seminars are directed specifically at your research. To make this effective preparatory work is required. Below we list some useful websites (U Tube) you should consult. The Khan Academy videos are particularly useful. They enable you to work at your own pace, and to rerun videos if you need to. A few are listed here, alongside other sites you should look at. Please complete the preparatory work before the start of the research methods programme.

# Websites

**The following short programmes are useful introductions to the PhD programme** http://www.youtube.com/watch?v=pwgxI-JjKDQ Introduction to research methodology http://www.youtube.com/watch?v=jKL2pdRmwc4&hd=1 Literature review http://www.youtube.com/watch?v=w183qB0KDFg&hd=1 Writing structured paragraphs http://www.youtube.com/watch?v=zJ8Vfx4721M&hd=1 The research proposal http://www.youtube.com/watch?v=vHHtfO-Bu1M&hd=1 Writing a thesis http://www.youtube.com/watch?v=HyJrrUIocUI&hd=1 Mind maps http://www.youtube.com/watch?v=90Af3g5\_138&hd=1 critical thinking and the Socratic method http://www.youtube.com/watch?v=lcMB8Rqe5i0&hd=1 Developing a research question

# The following short programmes cover the elementary statistics that the research methods programme will build upon.

http://www.youtube.com/user/khanacademy?feature=watch&hd=1 Khan Academy lecture by Khan

https://www.khanacademy.org/math/probability/descriptive-statistics/old-stats-videos/v/statisticssample-variance khan institute

https://www.khanacademy.org/math/probability Khan probability and statistics https://www.khanacademy.org/math/probability/descriptive-statistics descriptive statistics https://www.google.co.uk/search?q=statistics+self+test Self assessment test introductory statistics http://shawtlr.net/Statistics/Self-Tests.html Self assessment test more advanced statistics http://www.youtube.com/watch?v=6Sg0M8Fn99E&hd=1 Nature of qualitative research marketing-bulletin.massey.ac.nz/V5/MB\_V5\_N4\_McFarlane.pdf A Comparison of Mail and Faceto-Face Survey ...

<u>http://www.youtube.com/watch?v=M-lEVzKyqhQ&hd=1</u> sample surveys <u>http://www.youtube.com/watch?v=z3aBWEWBIGQ&hd=1</u> introduction to surveys (Health) <u>http://www.youtube.com/watch?v=ejssl46yzRg&hd=1</u> focus groups (Health) <u>http://www.youtube.com/watch?v=RBhpGHFVWfY&hd=1</u> (Focus groups Madmen) <u>http://www.youtube.com/watch?v=E4HAYd0QnRc&hd=1</u> Range variance and standard deviation

# The following discussion is a very good philosophy of science

<u>http://www.youtube.com/watch?v=cG3sfrK5B4E&hd=1</u> Philosophy of science 1 <u>http://www.youtube.com/watch?v=rAP4E3EpedE&hd=1</u> Philosophy of science 2 <u>http://www.youtube.com/watch?v=heTZPZhw2k0&hd=1</u> logical positivism In our time

# The following lecture introduces the issue of economic development in emerging nations

http://www.youtube.com/watch?v=ZXACh7sAzjw&hd=1 Stiglitz on economic development

#### Books

- Gladwell, Malcolm. The Tipping Point: How Little Things Can Make a Big Difference. Boston: Back
  Bay, 2002. Print. Also at; Gladwell, Malcolm. The Tipping Point: How Little Things Can
  Make a Big Difference. Boston: Back Bay, 2002. Print.
- "Schaum's Easy Outline of Statistics, Second Edition (Schaum's Outline Series) [Paperback]." Schaum's Easy Outline of Statistics, Second Edition (Schaum's Outline Series): David Lindstrom, Murray Spiegel: 9780071745819: Amazon.com: Books. N.p., n.d. Web. 21 Sept. 2013.
- "A Very Short Introduction to The Modern Scientific Method and The Nature of Modern Science [Kindle Edition]." Amazon.com: A Very Short Introduction to The Modern Scientific Method and The Nature of Modern Science EBook: Raji Al Munir: Kindle Store. N.p., n.d. Web. 21 Sept. 2013.
- What Is Critical Thinking?" *YouTube*. Teachphilosophy, 26 Dec. 2012. Web. 21 Sept. 2013. <a href="http://www.youtube.com/watch?v=9oAf3g5\_138">http://www.youtube.com/watch?v=9oAf3g5\_138</a>>.

#### **RESEARCH METHODS: COURSE OUTLINE**

#### Session 1 day 1

## Designing a conceptual model (Robin Matthews)<sup>1</sup>

## Morning

Quantitative and qualitative. An artificial distinction? Philosophies of science. Explanation, reach, empiricism; inductive and deductive reasoning. Problem of induction. Relativism; Continental and Anglo Saxon traditions. Normative and positive statements.

Afternoon Literature review, critical thinking. Constructing a conceptual model from the literature. Causality, structure and reduced forms. Exact equations, inexact equations and disturbances. An introduction to static, dynamic and stochastic models. Networks of relationships. Complexity. Problems as sets.

Application The Great Recession 2008-

Group work and presentations Problem definition theory and literature.

**Reading** "Essay Artikel Ghoshal - Bad Management Theories Are Destroying Good Practices." *Essay Artikel Ghoshal - Bad Management Theories Are Destroying Good Practices*. N.p., n.d. Web. 24 Sept. 2013. <a href="http://nl.scribd.com/doc/154732500/Essay-artikel-Ghoshal-Bad-Management-Theories-are-Destroying-Good-Practices">http://nl.scribd.com/doc/154732500/Essay-artikel-Ghoshal-Bad-Management-Theories-are-Destroying-Good-Practices</a>. <u>Article available from LSC PhD website</u>

<sup>&</sup>lt;sup>1</sup> An outline of RM's lectures and overheads for his sessions is at **robindcmatthews.com** 

#### Session 2 Day 2 (Robin Matthews)

#### Introduction to quantitative and qualitative methods

## The underlying theory

## Morning

Quantitative and qualitative. An artificial distinction? Probability. Samples and populations. The normal distribution, central limit theorem; power law distributions. Hypotheses, significance. Implications for testing.

## Afternoon

Structured observation, transparency, objectivity, relativism. Sources, access, ethics, interpretation. Primary and secondary data. Data is theory laden. Content analysis. Interview and questionnaire design. Focus groups and panels. Delphi and Socratic dialogue methods. Varieties of story telling.

**Group work and presentations** Designing the model in a falsifiable form; evidence and data problems.

## **Application** Strategic models

Reading: Gibbert, Michael, Winfried Ruigrok, and Barbara Wicki. "What Passes as a Rigorous Case Study?" *Strategic Management Journal* 29.13 (2008): 1465-474. Print.

This article performs two functions: it introduces the idea of a case study and it surveys the literature on case studies.

## Session 3 day 3 (Peter Abell)

## Formulating a research problem (descriptive and explanatory methods)

#### **Introduction**

Relating the problem to the literature and justifying the proposed research, developing a conceptual framework (multiple explanatory concepts)

Role of theory in developing a conceptual framework (deduction and induction)

Selecting research approaches : small N (qualitative / case studies) versus large N (quantitative / statistical) studies.

Cross sectional versus longitudinal designs

## Session 4 day 4 (Peter Abell)

#### Large N research

Defining a population of units of analysis possibly at multiple levels (e.g both organisations and individuals (introduce the Coleman diagram))

Sampling (revision)

Revision of the basic ideas behind statistical inference and tests of significance and analysis of variance

Interpreting the conceptual model as hypotheses

Converting concepts into variables.operationalisation(indices and index introduction to Lisrel and Amos) and levels of measurement.

Setting up the conceptual model in terms of variables

Bivariate regression models (linear and non linear, emphasis on assumptions)

Interpretations of beta and r

Multivariate regression models (linear, non linear, additive and interaction, interpretation of R2)

Representing the conceptual model in terms estimation regression equations

Multiple equation models and the role of control variables

Spurious correlation

Infering causal inference from statistical covariation (Introduction to Bayesian networks)

## Session 5 day 5 (Peter Abell)

## Small N (Case studies) Research

The interelation of comparison, generalisation and explanation

The role of ethnography (exploratory, descriptive and explanatory)

Interpreting the conceptual model as a chronology and narrative (longitudinal sequences of events and actions decisions)

Depicting and reporting case studies

Case studies and time series analysis( introduction to Granger causality)

Narratives and comparative narratives (introduction to network analysis)

Boolean analysis and causal inference

Causal inference and Bayesian narratives

Combining large and small N studies

## Session 6 day 6 (Robin Matthews)

## Next steps

Overview and integration of the research programme. Questions and answers.

Group work and presentations The draft research degree proposal in a nutshell.

3 slides

(a) Problem, justification and significance, (b) theory and (c) methodology

Hand in draft of research proposal to Joseph Fitzsimmons who will send to DoS and Supervisors for comment.

# **Additional Reading**

## Websites

http://www.youtube.cobe.com/watch?v=SfxrrMVzXK0&hd=1 Tips for writing a literature review http://www.youtube.com/watch?v=HyJrrUIocUI&hd=1 Mind maps http://www.youtube.com/watch?v=MIU22hTyIs4&hd=1 quantitative versus qualitative research cartoon http://www.youtube.com/watch?v=9oAf3g5\_138&hd=1 critical thinking and the Socratic method http://www.youtube.com/watch?v=YLaOVcXDkBQ&hd=1 Delphi method in research http://www.youtube.com/watch?v=tMZO8L1-qWE&hd=1 Delphi in action c http://www.youtube.com/watch?v=SGbgO1URDfc&hd=1 Delphi technique Wiki http://www.youtube.com/watch?v=FFfKOSTftcs&hd=1 Delphi part 1 a http://www.youtube.com/watch?v=SGbqO1URDfc&hd=1 Delphi part 2 a http://www.youtube.com/watch?v=ni\_A2bAkUww&hd=1 Understanding networks Laslo Barabasi http://www.youtube.com/watch?v=496ujSBhVpM&hd=1 Ricardo Haussman Networks in Development https://www.khanacademy.org/math/probability khan Probability and statistics http://www.youtube.com/watch?v=-FtlH4svqx4&hd=1 hypothesis testing P values http://www.youtube.com/watch?v=ig7GNipg0mI&hd=1 scientific method Quantitative Research Methods - nubkk Quantitative Research methods Introduction to Statistics and Quantitative Research Methods simple overview quantitative research Qualitative Research Methods Overview simple overview 1 Antenarratives organizational grammar and gödel ... Beyond Gaussian Averages - Durham University

#### Books

Abell, Peter. Comparing Case Studies: An Introduction to Comparative Narratives. London: Centre

for Economic Performance, London School of Economics and Political Science, 1992. Print.

"Amazon Prime Free Trial." Hard Facts, Dangerous Half-Truths And Total Nonsense: Profiting

From Evidence-Based Management: Jeffrey Pfeffer, Robert I. Sutton: 9781591398622:

Amazon.com: Books. N.p., n.d. Web. 24 Sept. 2013. < http://www.amazon.com/Facts-

Dangerous-Half-Truths-Total-Nonsense/dp/1591398622>.

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From Evidence-Based Management: Jeffrey Pfeffer, Robert I. Sutton: 9781591398622:

Amazon.com: Books. N.p., n.d. Web. 24 Sept. 2013. < http://www.amazon.com/Facts-

Dangerous-Half-Truths-Total-Nonsense/dp/1591398622>.

- "Amazon Prime Free Trial." Schaum's Outline of Statistics and Econometrics, Second Edition (Schaum's Outline Series): Dominick Salvatore, Derrick Reagle: 9780071755474: Amazon.com: Books. N.p., n.d. Web. 24 Sept. 2013. <a href="http://www.amazon.com/Schaums-Outline-Statistics-Econometrics-Edition/dp/0071755470">http://www.amazon.com/Schaums-Outline-Statistics-Econometrics-Edition/dp/0071755470</a>>.
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- Boje, David M. Narrative Methods for Organizational and Communication Research. London: SAGE, 2001. Print.
- "Business Research Methods [Paperback]." Business Research Methods: Alan Bryman, Emma Bell: 9780199583409: Amazon.com: Books. N.p., n.d. Web. 24 Sept. 2013. <a href="http://www.amazon.com/Business-Research-Methods-Alan-Bryman/dp/0199583404">http://www.amazon.com/Business-Research-Methods-Alan-Bryman/dp/0199583404</a>>.
- Buzan, Tony. "Mind Maps Make You Smarter." YouTube. YouTube, 22 Oct. 2008. Web. 21 Sept. 2013. <a href="http://www.youtube.com/watch?v=HyJrrUIocUI">http://www.youtube.com/watch?v=HyJrrUIocUI</a>.

David, Deutsch. The Beginning of Infinity. London: Penguin, 2009. Print.

- "Davidson and MacKinnon -- Econometric Theory and Methods." *Davidson and MacKinnon --Econometric Theory and Methods*. N.p., n.d. Web. 24 Sept. 2013. <a href="http://econ.queensu.ca/ETM/>.</a>
- "Digital Library." *Introduction to Econometrics : Principles and Applications / by Harry H. Kelejian, Wallace E. Oates.* N.p., n.d. Web. 24 Sept. 2013. <a href="http://library.um.ac.id/free-contents/index.php/buku/detail/introduction-to-econometrics-principles-and-applications-by-harry-h-kelejian-wallace-e-oates-22625.html">http://library.um.ac.id/free-contents/index.php/buku/detail/introduction-to-econometrics-principles-and-applications-by-harry-h-kelejian-wallace-e-oates-22625.html</a>.

- "Essay Artikel Ghoshal Bad Management Theories Are Destroying Good Practices." Essay Artikel Ghoshal - Bad Management Theories Are Destroying Good Practices. N.p., n.d. Web. 24 Sept. 2013. <a href="http://nl.scribd.com/doc/154732500/Essay-artikel-Ghoshal-Bad-Management-Theories-are-Destroying-Good-Practices">http://nl.scribd.com/doc/154732500/Essay-artikel-Ghoshal-Bad-Management-Theories-are-Destroying-Good-Practices</a>.
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- Heise, D. R. "The Syntax of Social Life: The Theory and Method of Comparative Narratives. ByPeter Abell. Oxford University Press. 120 Pp. \$36.00." *Social Forces* 68.1 (1989): 321-23.Print.
- Heitanen, Joel. "Managerial Storytellinghow We Write up." *1Aalto School of Economics, Department of Marketing*. N.p., n.d. Web.
- "Logical Positivism Overview." *In Our Time*. N.d. *YouTube*. YouTube, 06 July 2009. Web. 21 Sept. 2013. <a href="http://www.youtube.com/watch?v=heTZPZhw2k0>">http://www.youtube.com/watch?v=heTZPZhw2k0">> http://www.youtube.com/watch?v=heTZPZhw2k0">> http://www.youtube.com/watch?v

"Malcolm Gladwell." Malcolm Gladwell. N.p., n.d. Web. 24 Sept. 2013. < http://gladwell.com/>.

- "Malcolm Gladwell." *Malcolm Gladwell*. N.p., n.d. Web. 24 Sept. 2013. <a href="http://gladwell.com/the-tipping-point/">http://gladwell.com/the-tipping-point/</a>.
- Nagel, Thomasl. "A Philosopher Defends Religion." *Home*. NYR, 17 Sept. 2012. Web. 21 Sept. 2013. <a href="http://www.nybooks.com/>.</a>
- "Quantitative vs Qualitative Research." *YouTube*. YouTube, 06 Mar. 2012. Web. 21 Sept. 2013. <a href="http://www.youtube.com/watch?v=MlU22hTyIs4">http://www.youtube.com/watch?v=MlU22hTyIs4</a>>.
- Rihoux, Benoît, and Charles C. Ragin. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Thousand Oaks: Sage, 2009. Print.

- Salvatore, Dominick, and Derrick Reagle. *Statistics and Econometrics*. New York: McGraw-Hill, 2011. Print.
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- "Social Network Analysis: Methods and Applications (Structural Analysis in the Social Sciences) [Paperback]." Social Network Analysis: Methods and Applications (Structural Analysis in the Social Sciences): Stanley Wasserman, Katherine Faust: 9780521387071: Amazon.com: Books. N.p., n.d. Web. 24 Sept. 2013. <a href="http://www.amazon.com/Social-Network-Analysis-Applications-Structural/dp/0521387078">http://www.amazon.com/Social-Network-Analysis-Applications-Structural/dp/0521387078>.</a>
- "Stanford Graduate School of Business." *Hard Facts, Dangerous Half-Truths, and Total Nonsense*. N.p., n.d. Web. 24 Sept. 2013. <a href="http://www.gsb.stanford.edu/library/articles/facultybooks/pfeffer">http://www.gsb.stanford.edu/library/articles/facultybooks/pfeffer</a> sutton hard facts.html>.
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- "A Very Short Introduction to The Modern Scientific Method and The Nature of Modern Science [Kindle Edition]." Amazon.com: A Very Short Introduction to The Modern Scientific Method and The Nature of Modern Science EBook: Raji Al Munir: Kindle Store. N.p., n.d. Web. 21 Sept. 2013.
- "What Is Critical Thinking?" *YouTube*. Teachphilosophy, 26 Dec. 2012. Web. 21 Sept. 2013. <a href="http://www.youtube.com/watch?v=9oAf3g5\_138>">http://www.youtube.com/watch?v=9oAf3g5\_138></a>.