



An introduction to quantitative methods: A tool box

What is it all about?

As researchers and evaluators our world is full of questions and quandaries about programs, people and organizations. To ensure questions such as – ‘What really happened?’ and ‘Did it work?’ - can be answered, we need a large cache of tools. An evaluator’s tool kit is hefty and many of the most useful tools rely on quantitative methods, as the most commonly used approach in evaluation and social sciences research. This interactive subject is designed to provide evaluators and applied researchers with ‘user-friendly’ tools to investigate important questions about programs and social phenomena. In particular, the subject will focus on the use of quantitative methods, and techniques for describing quantitative data and drawing inferences.

How is the subject organised?

MAST 90070 is an online subject that is based on a series of key questions that we will explore over a six-week period. The questions include:

- What’s the real question?
- What’s the best methodological approach?
- Describing the Who, What, When?
- What’s required when sorting out relationships and real differences?
- The ‘what if’ question?
- Statistics Magic wand?
- How do we report it?
- How good is good enough?

By addressing each of these questions the subject will cover quantitative assumptions, appropriateness, implementation, and analysis and hence provide an introduction to quantitative methods in research and evaluation.

What will I be able to do when it’s finished?

On completing this subject you will be able to:

- write appropriate methodological questions
 - construct a simple quantitative design and understand appropriate use of different methods
 - understand different approaches to sampling and data collection
 - develop a measurement model and also develop and write appropriate goals, objectives, indicators and standards
 - use descriptive statistics in monitoring, evaluation and research
 - cluster and categorize groups and concepts as well as determine the nature of relationships between them
 - determine the difference between groups and use multiple methods for understanding true difference
 - use data to make a judgement
 - present data in the written and graphical form
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What do I have to do?

The following provides an overview of the assessment tasks undertaken as part of the subject:

- 1) Minor Assignment: A written piece focusing on different approaches and purposes in quantitative methods
Length: 1200 words
Worth 25%
- 2) Major Assignment: This will take the form of a proposal, a critique, a manual or article. This piece of work will be developed over the course of the subject
Length: 3000 words or 12 pages (negotiable)
Worth: 40%
- 3) Separate exercises: A number of exercises related to topics presented each week.
Length: Not specified
Worth: 20%
- 4) Participation: Students are expected to engage in an online discussion at least 3 times during the duration of the subject
Worth: 15%

Who's teaching it?

Subject Coordinator: Associate Professor Janet Clinton jclinton@unimelb.edu.au
Administrator: Marion Brown

When is it?

This subject is being taught during summer school from January 4 to February 17. **Optional** time on campus has been scheduled for Saturday, February 4 (to be confirmed). While this is only a 12.5 credit subject, it will be an intense period of study with a new set of exercises every four days.

How will it be taught?

MAST90070 will be taught online with an optional afternoon on campus. The subject is designed to be very accessible and focus on answering practical questions. It will also support students who are a little apprehensive about quantitative methods. While the material is aimed at a more introductory level there will be ample opportunity for the extension of existing knowledge. This will be a very interactive subject that (as noted above) will include an optional face-to-face event designed not only to extend knowledge, but to enable practice. Presentations from the day will be available online. While a number of resources will be provided to students, you will need to have access to the Internet and the University's Learning Management System (LMS). You will also need to have access to Excel and SPSS. A student licence for SPSS can be purchased from the University book room for approximately \$120.00

Are there any texts?

There are no required texts, however the following texts are recommended. These texts will be useful resources for evaluators and applied researchers.

- ❖ Keith F. Punch (2005). Introduction to Social Research—Quantitative & Qualitative Approaches. London: Sage, 320 pages
- ❖ Alan Bryman (2011) Social Research Methods 4e Fourth Edition Oxford University Press, You will also be provided with some links to useful online manuals.