RHD Forum – 20/3/12

Quantitative methods

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A Pragmatic Position

Your method should be decided based on its appropriateness to answer the question you ask.

There are many questions for which a quantitative approach offers a highly appropriate approach – which may also include a qualitative component.
Who's the Scientist?
Seventh graders describe scientists before and after a visit to Fermilab.

My scientist would look very smart and intelligent. My scientist would have a pair of glasses and a lab coat. My scientist would also be bald.

Scientists are normal everyday people... Instead of wearing lab coats, they have computers to work on and all have chalkboards to work out equations.

Jeffrey
Why might you want to use quantitative data?

Good reasons include:

» Want to present a rigorous response (evidence base) to your research question;

» Want to describe/compare broad views across a “community”/or “groups”;

» Want to assess impacts of an intervention?

» Know the broad issues and want to assess variation in views
One important feature of “Quant”!

Quant analysis is generally not very forgiving:

You collect the same data from all participants; and
You are likely not to be present during the data collection.

Good planning and preparation is essential
Your decisions:
the final decisions inform the initial ones

Your research focus

Your research question

Your analytical methodology

Associated data collection strategy
What / by whom?

Reporting approach
Key considerations in Quant

The question

The method used

The data you collect

How you analyse your results

& the comments/conclusions you can make
Your Question

“Discussed in selecting your method”
Your Design

- Descriptive
- Experimental
  - Randomised controlled trial – the gold standard
- Quasi-Experimental

- Survey
- Interviews
- Data Records/Observations
- Combination
- Other
How do you decide what statistical tests are appropriate?

Many tools/decision trees or Flow carts to assist
Implications of your design and your assumptions

- **Selection of your method**
  - Sampling approach
  - Sample size
  - Data quality – type of data (ordinal – interval?)
  - Data quality – do the numbers actually mean what you think
  - Analytical approach
  - Fitting assumptions

Generalizability of your conclusions?  
Issues of Validity and Reliability?
What does Quant Data Look Like?
### CODED DATA

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A “coding sheet” provides the link between the “data” and “the survey”
Now let's look at some practical examples from our speakers.