

INTRODUCTION TO RESEARCH METHODS

QUANTITATIVE AND QUALITATIVE RESEARCH

What is research.....

- All research is about the **collection of facts, information [data]** about a person, people and or an event[s]

What is the process of research?

- Process of research – most research starts with a question[s] and ends with an answer[s]



What is the process of research?

- Research is a systematic way of finding answers to questions



What is the process of research?

- **QUANTITATIVE**

OR

- **QUALITATIVE**

What is the process of research?

- Many ways of asking and answering questions
- These variations lead to different **methodologies**
- Different methodologies lead to different **methods**

What is the process of research?

- Both qualitative and quantitative research are used in the social sciences



What is quantitative research?

- A **systematic** approach to investigations
- **Numerical** data is collected, *or*
- The researcher **transforms** what is collected or observed **into numerical data**.

What is quantitative research

- Often asks such questions as 'whether' and '**how many**'
- Questions you may have about something.

What is quantitative research?

- Quantitative research involves measuring or counting attributes (i.e. quantities)

SIMPLE EXAMPLE

- In tests, 8 out of 10 women prefer 'Silky' shampoo.
- We're saying that in a survey of 10 women, 8 of them preferred 'Silky' shampoo to other brands.
- We've **asked** the women their preference, **counted** what they prefer and report the **findings as numbers**.

Quantitative research

- Based on a **positivist** position
- Dates back to the **1830's**
- Science – positive – observant of act

Quantitative research

- **Objective** enquiry
- Based on **measurable**, variable and **provable** propositions.

Quantitative research

- Prediction and proof
- The explanation or prediction of observable events

Quantitative research

- Quantitative approaches often revolve around finding **evidence** to either support or contradict an idea or **hypothesis**

Quantitative research

- An hypothesis is where a predicted answer to a research question is proposed

Quantitative research – example of hypothesis

- You might propose that if you give a student training in how to use a search engine it will improve their success in finding information on the Internet.

Examples of Quantitative Methods

- Surveys
- Questionnaires

Counselling Assessment Examples

- Outcome Measures

- Clinical Outcomes in Route Evaluation – Outcome Measure (CORE-OM)
- Generalised Anxiety Disorder Assessment (GAD-7)
- Patient Health Questionnaire (PHQ-9)

Strengths of Quantitative Research

- Some things need statistical answers, i.e. How many? How often?

Strengths of Quantitative Research

- Quantitative methods are ideally suited for finding out how many, who, what, when and where?

Strengths of Quantitative Research

- Allow for a **larger** study, involving a greater number of subjects, and enhancing the **generalisation** of the results

Strengths of Quantitative Research

- The **researcher** can be seen as more **objective** about the findings of the research



Strengths of Quantitative Research

- Can allow for greater **objectivity** and accuracy of results.

Strengths of Quantitative Research

- Employs prescribed procedures to ensure **validity** and reliability
- Research can **easily be replicated**, and then analysed and compared with similar studies



Strengths of Quantitative Research

- **Personal bias** can be avoided by researchers keeping a 'distance' from participating subjects and employing **subjects** unknown to them

Challenges of Quantitative Research

- How can we quantify a person's feelings?
- Some things cannot be subjected to numerical assessment



Challenges of Quantitative Research

- Can produce a **narrow dataset**
- Results provide numerical descriptions rather than detailed narrative ?
- Generally provide less elaborate accounts of human perception

Challenges of Quantitative Research

- **Preset** answers will not necessarily reflect how people really feel about a subject and in some cases might just be the closest match.

Challenges of Quantitative Research

- Development of standard questions by researchers can lead to 'structural' bias and false representation - data actually reflects **their view** instead of those researched.

Quantitative Research

- Julie Pallant – SPSS [statistical practice for social sciences] survival guide

DIRECTED READING

- Example of quantitative research paper on Moodle
- McLeod, J. 1999. *Practitioner research in counselling*. London: Sage.
- McLeod, J. 2003 *Doing counselling research*. London: Sage