



Differences between qualitative and quantitative research: A short primer

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+ Purpose



- This short primer is intended for students who have had limited exposure to research and may not be sure of the differences between qualitative and quantitative approaches.
- The ideas mentioned in here will be expanded upon over the course of this class.
- If the general distinction between qualitative and quantitative research is still unclear after going through this short primer, please contact the course facilitator and request some additional reading materials to ensure that you are prepared for the rest of the course material.



Qualitative vs Quantitative Research: What's the difference?



- “The distinction is at best hard to define, and at worst can be misleading” (David & Sutton, 2011, p.101)
- Generally, qualitative uses words, explores larger ideas about which existing knowledge has yet to be refined.
- Generally, quantitative research is interested in things that can be measured (numbers), and tries to test hypotheses.

Points of controversy between researchers: What can be measured? When is existing knowledge well-developed enough to test?

+ Testing vs. Exploring

- One of the main differences is the goal of the research. Are we testing a hypothesis? Or exploring an issue because we don't know what matters or we don't have established evidence that we can test?



+ Quantitative Research



- Uses deductive reasoning, tests theories
- Has incorporated the practices and norms of the natural scientific model (positivism). [More on this in our theory lecture]
- Embodies a view of social reality as an external, objective reality.
- Seeks to quantify observations.
- Emphasizes precise measurement, describing relationships between variables mathematically.

+ Qualitative Research



- Generates theory using an inductive approach.
- Has rejected the practices and norms of the natural scientific model and of positivism in preference for an emphasis on the ways in which individuals interpret their social world. [more on this in our theory lecture]
- Embodies a view of social reality as a constantly shifting emergent property of individuals' creation.
- Emphasizes participant descriptions and understandings of human behavior.
- Strives for careful and detailed descriptions or interpretations of social practices to understand how participants experience and explain their own world.

+ Common distinctions

Qualitative

- Description
- Induction
- Meaning
- Depth, uniqueness
- Multiple realities
- Holistic
- Develops theory
- Process oriented
- Rich descriptions

Quantitative

- Explanation
- Deduction
- Numbers
- Generalizability
- Single reality
- Reductionistic
- Tests theory
- Outcome oriented
- Precise measurement



Quantitative is a good choice if:



- Your research question is very precise in terms of the data that is required to answer it.

- You have a testable hypothesis about what's going on.



Qualitative is a good choice if:



- You are not sure exactly what type of information you need to answer your question.
 - E.g. what factors are important
- The boundaries/parameters of the question are still broad and may need exploration within the data collection process itself.



Data Collection Possibilities



Quantitative	Qualitative
Pre-determined methods	Emerging Methods
Instrument based questions	Open-ended questions
Performance, attitude, observational, census data	Interview, observation, document, audio-visual data
Statistical analysis	Text and image analysis
Statistical interpretation	Themes, patterns, interpretation

+ Practices of the Researcher

Quantitative

- Tests or verifies theories or explanations.
- Identifies variables to study.
- Relates variables in questions or hypotheses.
- Uses standards of validity and reliability.
- Observes and measures information numerically.
- Attempts to be unbiased.
- Employs statistical procedures.

Qualitative

- Positions him or herself with a certain perspective on the research.
- Collects participant meanings.
- Focuses on a single concept or phenomenon
- Brings personal values into the study
- Uses standards of credibility, originality, transferability.
- Studies the context or setting of participants.
- Makes interpretations of the data
- Creates and agenda for change or reform.
- Collaborates with participants

+ Points to ponder



- Is survey research qualitative or quantitative?
- How could a study on quality of life be done in a quantitative way? In a qualitative?
- Can these two approaches be combined?