

Upcoming Events:

1. Reminder: The next assignment (due after class on Thursday) is the works cited page. Students must turn in a typed list of at least 5 non-internet sources they plan to use for their research projects. I will explain more about this assignment this week.

Today's Blueprint:

2. In the last class, we briefly compared the strengths and weaknesses of qualitative and quantitative research.

| Qualitative vs. Quantitative Research: Side-by-Side Comparisons | |
|---|--|
| Quantitative | Qualitative |
| Objective | Subjective |
| Descriptive of causal research | Exploratory research |
| "Hard" science | "Soft" science |
| Literature review must be done early in study | Literature review may be done as study progresses or afterward |
| Tests theory | Develops theory |
| One reality: focus is concise and narrow | Multiple realities: focus is complex and broad |
| Reduction, control, precision | Discovery, description, understanding, shared interpretation |
| Measurable | Interpretive |
| Mechanistic: parts equal the whole | Organismic: whole is greater than the parts |
| Report statistical analysis. Basic element of analysis is numbers | Report rich narrative, individual interpretation. Basic element of analysis is words/ideas. |
| Researcher is separate | Researcher is part of process |
| Uses subjects | Uses participants |
| Context free | Context dependent |
| Create hypotheses | Create research questions |
| Reasoning is logistic & deductive | Reasoning is dialectic & inductive |
| Establishes relationships, causation | Describes meaning, discovery |
| Uses instruments | Uses communication and observation |
| Strives for generalization | Strives for uniqueness |
| Designs: descriptive, correlational, mathematical (statistical), quasi-experimental, and experimental | Designs: phenomenological, grounded theory, ethnographic, historical, philosophical, case study. |
| Sample size: 30 to 500 | Sample size is not a concern; seeks "information rich" sample |
| Types of questions: non-probing | Types of questions: probing |
| Type of analysis: statistical summarization | Type of analysis: subjective, interpretive |
| Easy to replicate | Tough to replicate |
| "Counts the beans" | Provides information as to "which beans are worth counting" |

1. All methods are flawed. However, if you use several methods, all flawed in different ways, then you have a better chance at getting accurate answers to your research questions.
2. In this class, we will outline relative merits of **Triangulation**—the integration of both **qualitative** and **quantitative research** methodologies
3. We will discuss triangulation based on the following ideas:

1. Fundamental Goals:

- 1. **Of Science** = To Understand, To Predict, To Control
- 2. **Of Scientists** = To communicate discoveries and findings to a community of peers

2. Designing research: Dimensions of analyses

- 1. **Research** Purposes - theoretical or applied?
- 2. **Research** Problems - what questions are asked?
- 3. **Research** Settings - simulated or natural?
- 4. **Research** Investigators - background and training
- 5. **Research** Methods - a continuum...

3. Evaluating Research

Validity = A concern for most social scientists is the complex nature of the phenomena under study: human

behavior.

= Multiple perspectives are required in order to adequately reflect the richness of these complexities.

Reliability = Consistency, Replicability

4. Usefulness or Value of Investigation

- 1. Contribution to knowledge
- 2. Advance THEORY and PRACTICE in discipline

**Fundamental Goals of Research Methodologies
(A continuum rather than “either/or”)**

Qualitative

- 1. Goal: To Understand, Predict
- 2. Descriptive accounts
- 3. Similarities and Contrasts
- 4. Applied and Theoretical
- 5. Research Questions
- 6. Field study
- 7. Natural conditions

Quantitative

- 1. Goal: To Predict and Control
- 2. Measure and Evaluate
- 3. Generalize to population, reproduction
- 4. Basic and Theoretical
- 5. Hypothesis testing
- 6. Lab study
- 7. Controlled, contrived

Evaluating Research

Both **Quantitative** and **Qualitative research** designs seek reliable and valid results. For example:

- 1. **Quantitative** Reliability: Data that are consistent or stable as indicated by the researcher's ability to replicate the findings.
- 2. **Qualitative**: Validity of findings are paramount so that data are representative of a true and full picture of constructs under investigation.

Part versus Whole

“Whole” is often greater than “Parts”

- 1. It is important to infer the behavior of the whole from the behavior of its parts
 - a. **Quantitative research** designs strive to identify and isolate specific variables within the context (seeking correlation, relationships, causality) of the study.

- b. **Qualitative** design focuses on a holistic view of what is being studied (via documents, case histories, observations and interviews).

Data Collection

Quantitative:

2. Emphasis on numerical data, measurable variables
3. Data is collected under controlled conditions in order to rule out the possibility that variables other than the one under study can account for the relationships identified

Qualitative:

4. Emphasis on observation and interpretation.
5. Data are collected within the context of their natural occurrence.

Static and Dynamic

Quantitative:

1. The accumulation of facts and causes of behavior through careful isolation, measurement and evaluation of variables.
2. Predictability and Control over time.

Qualitative

1. Concerned with the changing and dynamic nature of reality.
2. Understanding a Point in time

Triangulation: The Solution?

1. Combines independent yet complementary **research** methods.
2. Also known as “mixed methods”

2 Major triangulation types:

A. Simultaneous **triangulation:**

1. Use of both **qualitative** and **quantitative** methods at the same time (e.g., Survey methods and Case study)

B. Sequential **triangulation:**

2. Results of one method are essential for planning the next method (e.g., Exploratory Pilot study precedes Experimental design)

Benefits of Triangulation

Advantages of each complement the other

3. Resulting in a stronger **research** design, and
4. More valid and reliable findings.

Inadequacies of individual methods are minimized

1. Threats to Internal Validity are realized and addressed

Example

2. **Quantitative** design strives to control for bias so that facts, instances, phenomena can be understood in an objective way.

3. **Qualitative** approach strives to understand the perspective of participants or a situation by looking at firsthand experience to provide meaningful data.

Additional Benefits

1. **Triangulation** offers a balance between logic and stories.
2. Qualitative **research**, which emphasizes exploration, understanding, contextualizing, introspection, and theory construction, provides a strong base for wider **quantitative** measures, scaling, and generalization.
3. **Quantitative research**, which emphasizes large samples, can provide an overview of an area that can reveal patterns, inconsistencies, and so forth, that can be further investigated with **qualitative** methods.

Effectiveness of Triangulation

In order for **Triangulation** to be used effectively, four principles must be adhered to (Corner 1990):

1. **Research** question(s) must be clearly focused;
2. Strengths and weaknesses of each chosen method must complement each other;
3. Data collection methods should be selected according to their relevance to the nature of the phenomenon being studied
4. A continual evaluation of the approach should be under-taken during the study.