“All Reality is socially constructed.”
How do we construct meaning out of this socially constructed reality?
Prof. C.D. Martin

Social Science Research

<table>
<thead>
<tr>
<th>QUANTITATIVE PARADIGM</th>
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<tbody>
<tr>
<td>experiment-based</td>
<td>naturalistic</td>
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<tr>
<td>hypothesis confirming</td>
<td>hypothesis generating</td>
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<tr>
<td>theory proving</td>
<td>theory building</td>
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<tr>
<td>legalistic, static</td>
<td>chaotic, dynamic</td>
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<tr>
<td>positivistic</td>
<td>holistic</td>
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<tr>
<td>explain, predict</td>
<td>describe, understand</td>
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<td>deductive</td>
<td>inductive</td>
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**Quantitative:** Establish theoretical framework
- specific area to study - snapshot, results at a given instant in time
- hypothesis to be proved
- develop experimental method - design, samples, lab or field-based
- design data collection instruments
  - surveys, tests, measurements
- gather data - know what we are trying to prove ahead of time
- analyze data - use of statistical methods
  - *descriptive statistics*
    - one variable
      - central tendency - mean, median, mode
      - variation - standard deviation
      - distribution - frequency charts, percentiles
    - two variable (independent, dependent)
      - bivariate distribution tables
      - scatter chart
      - regression analysis – correlation
  - *Inferential statistics*
    - causality
    - predictions
- present findings - prove or disprove hypothesis
- strengths - generalisability (external validity), replication (reliability)
- weaknesses - asking wrong questions (internal validity), narrow results

**Qualitative Research:** Establish investigation framework to produce grounded theory
“All quantitative research is equivalent to the power of a three-neuron brain (Levin)”
- specific area to study - process and sequence
- hypothesis to emerge from data - interpretation of meaning
- develop inductive method - naturalistic, field-based, case study
- design data collection techniques
  - interviews, surveys, observations, historical documents, focus groups
- gather data - may refine as we go along
- analyze data
  - descriptive statistics for demographic data
  - content analysis
  - protocol analysis
- present findings - major themes emerge, new grounded theory
- strengths - broader understanding of social contexts, high internal validity, new theory
- weaknesses - “subjective”, too anecdotal, not generalisable (external validity), lacks reliability