MIXED METHODS PROCEDURES

“Developed in response to a need to clarify the intent of mixing quantitative and qualitative data in a single study.”

DESIGNING A MIXED METHODS PROCEDURE

• Basic definition of Mixed methods research
• Criteria for choosing mixed methods strategy
• Visual model illustrating the research strategy
• Procedures of data collection and analysis
• Sampling strategies
• Procedures for validating data
• Narrative Structure
### Criteria for Choosing a Strategy

<table>
<thead>
<tr>
<th>IMPLEMENTATION</th>
<th>PRIORITY</th>
<th>INTEGRATION</th>
<th>THEORITICAL PERSPECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Sequence Concurrent</td>
<td>Equal</td>
<td>At data collection</td>
<td>Explicit</td>
</tr>
<tr>
<td>Sequential-Qualitative first</td>
<td>Qualitative</td>
<td>At data collection</td>
<td></td>
</tr>
<tr>
<td>Sequential-Quantitative first</td>
<td>Quantitative</td>
<td>At data Interpretation With some Combination</td>
<td>Implicit</td>
</tr>
</tbody>
</table>
CASE I - SEQUENTIAL EXPLANATORY STRATEGY

- **Purpose**: Is to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study.
- **Easy to implement, describe and report.**
- **Weakness**: Is the length of time involved in data collection, with the two separate phases.
Alternative Strategies and Visual Mode.........

CASE II - SEQUENTIAL EXPLORATORY STRATEGY

- Purpose is to use quantitative data and results to assist in the Interpretation of qualitative findings.
- Primary focus of this model is to explore a phenomenon.
- Weakness is the length of time involved in data collection, with the two separate phases.
Alternative Strategies and Visual Mode

CASE III - SEQUENTIAL TRANSFORMATIVE STRATEGY

- Purpose is to employ methods that will best serve the theoretical perspective of the researcher.
- Caters to diverse perspectives and help understand a phenomenon or process changing as a result of being studied.
Alternative Strategies and Visual Mode

CASE IV – CONCURRENT TRIANGULATION STRATEGY

- Used as a means to offset the weakness inherent with one method with the strengths of the other method.
- Interpretation can either note the convergence of the findings as a way to strengthen the knowledge claims of the study or explain any lack of convergence that may result.
Alternative Strategies and Visual Mode

CASE V – CONCURRENT NESTED STRATEGY

- The embedded method may address a different question than the dominant method.
- Unequal evidence within a study.....disadvantage when interpreting the final results.
**MIXED METHODS PROCEDURES**

**Alternative Strategies and Visual Mode**

**CASE VI – CONCURRENT TRANSFORMATIVE STRATEGY**

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>QUANTITATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qual + Quant</td>
<td></td>
</tr>
</tbody>
</table>

- Guided by the Researcher’s use of a specific theoretical perspective.
- Advantage of positioning mixed methods research within a transformative framework.
MIXED METHODS PROCEDURES

Data Collection Procedures

• Identify the type of data
• Sampling- Random or Specific
• Relate the procedure to the Visual Model

Data Analysis and Validation Procedures

• Data Transformation
• Explore Outliers
• Instrument Development
• Examine multiple Levels.
UN-OBTRUSIVE METHODS

“Methods which allow researchers to study social life from afar, without influencing it in the process”

- Non Reactive Research

REVIEW OF OBTRUSIVE METHODS

- Requires the researcher to intrude to some degree into the area of study.
  - SURVEYS
  - INTERVIEWS
  - QUESTIONNAIRES
  - INTERVIEWS
“Methods which allow researchers to study social life from afar, without influencing it in the process”

- Non Reactive Research

ARCHIVAL STRATEGIES

HUMAN TRACES AS DATA SOURCES
UN-OBTRUSIVE METHODS

“Methods which allow researchers to study social life from afar, without influencing it in the process”

- Non Reactive Research

ARCHIVAL STRATEGIES

- PUBLIC ARCHIVES
  Typically are formal and have a prescribed format

- PRIVATE ARCHIVES
  They are usually in a Personalized Format
ARCHIVAL STRATEGIES

PUBLIC ARCHIVES

- COMMERCIAL MEDIA ACCOUNTS
- ACTUARIAL RECORDS
- OFFICIAL DOCUMENTARY RECORDS
ARCHIVAL STRATEGIES

PUBLIC ARCHIVES

• COMMERCIAL MEDIA ACCOUNTS
  • Written
  • Drawn
  • Recorded (Video or Audio)
  • Newspaper
  • Books
  • Magazines
  • Television program transcripts
  • Videotapes
  • Maps…. 
ARCHIVAL STRATEGIES

PUBLIC ARCHIVES

• ACTUARIAL RECORDS
  Typically available to the public under certain circumstances
  • Birth Records
  • Death Records
  • Marriage
  • Divorce
  • Land Information
  • Demographic
  • Application information held by Insurance and credit card companies
PUBLIC ARCHIVES

OFFICIAL DOCUMENTARY RECORDS

Offer particularly interesting sources of data

- Court Transcripts
- Police Reports
- Census Information
- Financial Information
- Crime statistics
- Political Speech Transcripts
ARCHIVAL STRATEGIES

PRIVATE ARCHIVES

Useful for creating case studies or life histories, owing to the personal nature of private documents.

They are not created for public in general.

• SOLICITED DOCUMENTS

Documents which are encouraged or requested by the researcher.

• UN-SOLICITED DOCUMENTS

Documents which occur naturally and are discovered by the researcher.
ARCHIVAL STRATEGIES

PRIVATE ARCHIVES

• AUTOBIOGRAPHIES
• STUDY DIARIES AND LETTERS
• NOTES
ARCHIVAL STRATEGIES

PRIVATE ARCHIVES

- AUTOBIOGRAPHIES

E.G. To find out interesting material in medical practice, researcher should dig out an autobiography of a physician.
ARCHIVAL STRATEGIES

PRIVATE ARCHIVES

• AUTOBIOGRAPHIES
  
  E.G. To find out interesting material in medical practice, researcher should dig out an autobiography of a physician.

• STUDY DIARIES AND LETTERS
  
  E.G. Study on how much time does a student spent in studying?
ARCHIVAL STRATEGIES

PRIVATE ARCHIVES

• AUTOBIOGRAPHIES
  E.G. To find out interesting material in medical practice, researcher should dig out an autobiography of a physician.

• STUDY DIARIES AND LETTERS
  E.G. How much time does a student spent in studying?

• NOTES
  E.G. Suicide Note
UN-OBTRUSIVE METHODS

HUMAN SOURCES AS DATA SOURCES

“Traces left behind by humans, often as the result of some unconscious or unintentional activity.”

PHYSICAL ACCRETION

Build up of a residue or product of the interaction – something added to the situation

PHYSICAL EROSION

Varying degrees of selective wear or use
UN-OBTRUSIVE METHODS

HUMAN SOURCES AS DATA SOURCES

PHYSICAL ACCRETION

• Graffiti on wall
• Garbage
• Litter

Trace measures: accretion. Graffiti on the side of this East Los Angeles market provides a record of gang activity in the area.

To express attitudes and sentiments which are socially disapproved. Most American toilet walls reveal a preoccupation with sexual experience, excretion, ethnic hostility, and divergent political views. A comparison of latrines in Chicago and the Philippines showed far more homosexual writing in Chicago restrooms but about the same amount of heterosexual writing. The American inscriptions were also more likely to be judged humorous, political, and philosophical. The Philippine wall writing had a higher frequency of hostile content and disapproval of sexual ideas (Sethoff & Flores, 1969). The eruption of Mount Vesuvius in 79 A.D. covered the city of Pompeii with a heavy layer of volcanic ash which cooled as it fell to earth. The dense...
UN-OBTRUSIVE METHODS

HUMAN SOURCES AS DATA SOURCES

PHYSICAL EROSION

• Deterioration of lawns
• Footprints in snow
Unobtrusive methods can be used in combination with obtrusive methods or in isolation depending on the nature of the study.

Limitations - Archival records may be misleading due to underreporting or bias.

-Trace measures may be the result of extraneous factors.
“Any technique for making inferences by systematic and objective identifying of special characteristics of messages”

Holsti

- May be applied to any form of communication
- Artifacts of study are
  - BOOKS
  - MAGAZINES
  - POEMS
  - NEWSPAPERS
  - SONGS
  - PAINTINGS
  - SPEECHES
  - LETTERS
  - LAWS
  - CONSTITUTIONS

And others….
Topics Appropriate to Content Analysis- “Who says what, to whom, why, how and with what effect?”

Example-

• Are manufacturer’s of men's products more likely to sponsor violent TV shows than other kind of sponsors?

• Was the popular American music of the 1960s more politically cynical than the popular German music during that period?

• Do political candidates who primarily address “bread and butter” issues get elected more often than those who address issues of high principle?
As a mode of Observation, content analysis requires a considerable handling of the *what*, and the analysis of the data collected in this mode, addresses the *why* and with *what effect*.

- The units of observation may or may not differ from the units of Analysis.

**Example**-
Whether criminal law or civil law makes the most distinctions between men and women.  
(Individual laws both units of observation and units of analysis)

Whether states that enact laws distinguishing between different racial groups are more likely than other states to enact laws distinguishing between men and women.  
(Individual laws are units of observation but the unit of analysis is individual state and not the law!)

- Sample selection depends on the units of analysis
## Content Analysis

<table>
<thead>
<tr>
<th>SPONSOR</th>
<th>MEN’S PRODUCT</th>
<th>NUMBER OF INSTANCES OF VIOLENCE</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grunt Aftershave</td>
<td>✓</td>
<td></td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Brute Jock Straps</td>
<td>✓</td>
<td></td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Roperot Cigars</td>
<td>✓</td>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Grunt Aftershave</td>
<td>✓</td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Snowflake toothpaste</td>
<td>✓</td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Godliness cleanser</td>
<td>✓</td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Big thumb Hammers</td>
<td>✓</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Revlon Lipstick</td>
<td>✓</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Example:**

**Key Variables**
- Men’s product & Violence

**Unit of Analysis**
- Commercial

**Unit of Observation**
- Commercial & Program

**Sample**
- Commercial

‘Need to establish the Universe to be sampled from”
Key Decisions for the Researcher….

- Time period
- Source
- Sampling Design
- Coding
**CONTENT ANALYSIS**

**Counting and Record Keeping**

- Coding Operation must be amenable to data processing.
- Record keeping must distinguish between the units of analysis and units of observation.
- Record the base from which the counting is done.

**Example** - Describe and explain the editorial properties of different newspapers

<table>
<thead>
<tr>
<th>Newspaper ID</th>
<th>Number of editorials evaluated</th>
<th>Subjective Evaluation</th>
<th>Number of anticommunist editorials</th>
<th>Number of pro-UN editorials</th>
<th>Number of anti-UN editorials</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>37</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>002</td>
<td>26</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>003</td>
<td>44</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>004</td>
<td>22</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>005</td>
<td>30</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

Very liberal-1; Moderately liberal-2; Middle-of-road-3; Moderately conservative-4; Very conservative-5
“Content Analysis is essentially a coding operation”

- Information coded or classified in a conceptual framework.

Example

Newspaper editorials may be coded as propagandistic or not.
Paintings may be coded as representational or not.

“Depth and Specificity……..Validity and Reliability”

MANIFEST CONTENT

- The visible surface content
- Advantage - Ease and Reliability in coding
- Disadvantage – Validity

LATENT CONTENT

- The underlying meaning
- Advantage comes at the cost of reliability and specificity.

When in dilemma…..use both methods!
“Conceptualization and the Creation of Code Categories: The interaction of theoretical concerns and empirical observations”

- Both Inductive and Deductive Methods are used.

- Attributes of variables to be mutually exclusive and exhaustive!

- Operational definitions should be defined and coding scheme must be pre-tested.

- For quantitative research, definition can be based on the subsequent quantitative analyses.
**Strengths of Content Analysis**

- Economy in terms of time and money.
- Safety - easier to repeat a portion of the study.
- Scope to study processes occurring over long periods of time.
- The content analyst seldom has any effect on the subject being studied.

**Weaknesses of Content Analysis**

- Limited to the examination of recorded communications.
- Question of validity!