

## SURVEY

*Method to gather **opinions from large numbers** of respondents to **represent statistically** a specific population group to be studied*

### PROCEDURES

- Introduce the purpose of the study, provide contact information
- Ask demographic questions; age, gender, income, education, etc.
- Ask subject questions; try to **focus on one primary topic** per survey
- Make questions and choices clear and concise; order questions for neutral responses
- Use **open-ended questions to elicit opinions** and content for qualitative and quantitative results, when you do not know all possible answers or there are too many possible answers to query reasonably
- Use **close-ended questions for quantitative results**, when you have a large number of questions, when you want to easily compare answers, or the survey is machine scored
- Use **visual materials for preferences**, differentials
- Formats vary for distribution: telephone, internet, e-mail, one-on-one, mail; groups
- Questions should always be **pre-tested** for neutrality, order, wording, and sampling
- Use rankings, ordinals, scales
- Quantitative assessment of responses (Statistics)
- Qualitative assessment of open-ended responses

### STRENGTHS

- Involves large numbers of people in short amount of time
- Eliminates 'researcher influence'
- Useful for statistical analysis
- Easy to perform
- Economical
- Easy to compare responses from different groups within same population
- Generalizable, easy to replicate

### WEAKNESSES

- Not useful for very young, very old, or uninterested populations
- Cannot examine topic in-depth; follow up interviews may be required
- Not useful to examine deeper level of meaning, opinions, or emotions
- Response rate may be very low

### TYPES OF TECHNIQUES

Freelist Survey  
Multiple Sorting  
Multiple Choice  
Likert Scale  
Semantic Differentials

### RELATED METHODS

Interview  
Behavior Map  
Observation

### RESOURCES

Sommer and Sommer Chapters 9,10,17,18,19  
Groat and Wang Chapter 8

## FREELIST SURVEY

*A survey method to identify shared understanding in a common cultural domain*

<p><b>PROCEDURES</b></p> <ul style="list-style-type: none"> <li>• Identify domain / topic (e.g.: memorable places in a town)</li> <li>• Survey <b>large group of people</b>- more than 30</li> <li>• Ask people to <b>list items</b> within the domain (e.g.: “Please list all the memorable places in your town. The places could include buildings, streets, natural features, landmarks, significant vegetation, etc. Please list / write down one item at a time.”)</li> <li>• <b>Aggregate</b> listed items</li> <li>• Items that appear <b>frequently are important</b> or widely shared</li> <li>• Items that appear <b>early in the listing are important</b> or widely shared</li> <li>• Items that appear <b>infrequently are more idiosyncratic</b></li> <li>• Items that appear <b>close together are related</b> (spatially, visually, and/or symbolically)</li> <li>• <b>Size</b> of each person’s list relates to <b>familiarity</b> of subject (bigger list= more familiar)</li> </ul>	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Easy to perform</li> <li>• Researcher can write list for respondent (respondent may be illiterate, challenged)</li> <li>• Captures culturally-shared understanding</li> <li>• Respondents can list places not within study setting but are somehow connected</li> <li>• Easy to identify what seems important</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Respondents may be influenced by the place where the free listing survey takes place</li> <li>• Respondents may include different environmental attributes in the same list</li> <li>• Respondents may bundle similar places/ attributes together</li> </ul>
<p><b>TYPES OF STRATEGIES</b></p>	<p><b>RELATED METHODS</b></p> <p style="text-align: center;">Multiple Sorting Experiential Collage</p>
<p><b>RESOURCES</b></p> <p>Groat and Wang Chapter 8</p>	

## MULTIPLE SORTING

*A **survey** method to identify conceptual systems for **classification** of places, things or to identify subjective **meanings of place***

### PROCEDURES

- Create list of variables (15-20) to be sorted into **categories** (variables based on existing information/ research); variables may be represented by their names, visual media (photos), etc.
- Each variable is labeled on a card, participants are asked to **sort cards into categories**
- Ask participant how they created categories, you can **establish criteria** also
- **Run multiple** sorts
- After the initial sorting, variables may be **re-sorted** into sub categories and ranking orders
- The same cards can be used in multiple criteria
- Look for **subjective meanings** associated with places

### STRENGTHS

- Easy to perform
- Provides focus for follow up interview
- People are free to use their own criteria
- Can be used to identify complex classification systems

### WEAKNESSES

- Respondents may use multiple, personally-derived criteria, it may be difficult to identify a shared pattern across the group studied
- Ambiguous titles/ names written on cards can confuse respondents

### TYPES OF STRATEGIES

### RELATED METHODS

Interview  
Experiential Collage  
Focus Group

### RESOURCES

Groat and Wang Chapter 8

## MULTIPLE CHOICE

*A survey method with choices in a range of possible answers to structured question*

### PROCEDURES

- Create survey using **closed-ended questions**
- Provide **a range of possible answers**
- Answers may be **ranked, randomized, scaled, or rated**
- Questions may be **ordered neutrally or randomly** or they may be ordered to provide positive or negative scales to responses
- Create 'key' to survey if answers are to be ranked or scaled
- Generally quantitative analysis is used; descriptive statistics should be meaningful (not be done for the sake of data, but for the sake of meaning)
- Single or multivariate analysis (one or more variables to analyze)

### STRENGTHS

- Good to identify attitudes
- Good for large number of respondents
- Good for a large number of questions
- Good for narrow field of discussion
- Useful when you need to compare answers across sample

### WEAKNESSES

- Elicits 'bare bones' responses
- May provide general structure to concept but not deep meaning
- Poorly worded choices can create inaccurate attitudes
- Not suitable for use to predict behavior
- Not suitable for very young, very old, or infirmed populations

### TYPES OF STRATEGIES

### RELATED METHODS

Interview

### RESOURCES

Sommer and Sommer Chapters 9, 18, 19  
Groat and Wang Chapter 8

## LIKERT SCALE

*A **survey scale** to rate people's judgments and rankings*

<p><b>PROCEDURES</b></p> <ul style="list-style-type: none"> <li>• Can use 5-, 7-, or 9- point scale</li> <li>• Must have at least <b>one neutral option</b></li> <li>• Must be <b>clearly defined</b></li> <li>• Must have <b>equal number</b> of favorable and unfavorable statements</li> <li>• Generally statistical analysis</li> <li>• Descriptive or inferential analysis</li> </ul>	<p><b>EXAMPLE</b></p> <p>Instructor is knowledgeable of class subject:</p> <p>Strongly Agree            Agree            Undecided            Disagree            Strongly Disagree</p>
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Not ambiguous</li> <li>• Allows neutral position</li> <li>• Rating, not ranking</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Does not account for complex behaviors, emotions, opinions</li> <li>• Topic may be complex; cannot be evaluated fully by one dimension of viewpoint</li> </ul>
<p><b>TYPES OF STRATEGIES</b></p>	<p><b>RELATED METHODS</b></p>
<p><b>RESOURCES</b></p> <p>Sommer and Sommer Chapters 10, 18, 19            Groat and Wang Chapter 8</p>	

## SEMANTIC DIFFERENTIALS

*A survey scale with opposing and ambiguous adjectives used to measure meaning of concepts*

### PROCEDURES

- Use 5- or 7-point scale
- 10-12 **adjective pairs** per rating
- Must **counterbalance** the sequence with positive and negative statements
- Frequency analysis
- Example:

Rate the park nearest your residence along each of the following scales:

Quiet ..... Noisy  
 Dangerous ..... Safe  
 Pleasant ..... Chaotic

### STRENGTHS

- Measures meaning

### WEAKNESSES

- Adjectives have different meaning to different people
- Use only on cooperative, adult subjects due to difficulty in understanding the statements

### TYPES OF STRATEGIES

### RELATED METHODS

### RESOURCES

Sommer and Sommer Chapters 10, 18, 19  
 Groat and Wang Chapter 8

## INTERVIEWING

*conversation with purpose to reveal in-depth information not available via survey*

### PROCEDURES

- Types:
  - **Unstructured:** general topic with specific questions but no predetermined order or specifically worded questions; Good for in-depth interviewing
  - **Structured:** questions are pre-designed, asked in a specific order and manner; Good for consistency and aggregate analysis
  - **Semi-structured:** specific questions asked in varied order and manner to adapt
  - **Non face-to-face:** via telephone, email, video chat, on-line chat. Economical and expedient, may result in higher response rate but limits sample to those with access which may skew data
  - **Focus group:** group interview of 8-10 people (approximately)
- Topic should be familiar and **easy to discuss**.
- Questions should be practiced and easy to understand, **without jargon** or complex structure
- Use video or audio record and **take notes**
- First **impressions matter**; record more than the words. Take notes on impressions, environment, and context of the interview
- Convey **sense of neutrality**, show no judgment in questions or to responses
- Keep eye contact, **stay on track**, and be ready to **adapt** questions or situation to the respondent
- Generally qualitative analysis: key word or content analysis, grounded theory may be used.
- Typically reliant on the narrative conclusions

### STRENGTHS

- Can be used to supplement other methods
- Economical
- Easy to perform
- Can reveal more information than a survey
- Can reveal more accurate information than a survey
- Opportunity to observe and discuss behaviors, physical environment, and non-verbal cues
- Can be empowering to participants
- May explore complex emotions and feelings in context

### WEAKNESSES

- Presence of recording equipment (audio/video) may influence responses
- Interpretation of language may lead to false conclusions, use direct quotes whenever possible
- Can be tiring, time consuming
- Subject bias inevitable; what people say is not always what they think
- May lack consistency
- May be expensive with large participant group
- Respondents may be influenced by interviewer's tone, manner

### TYPES OF STRATEGIES

Individual interviews  
Focus group

### RELATED METHODS

Survey      Experiential Collage  
Archival      Observation

### RESOURCES

Sommer and Sommer Chapters 8 and 15  
Groat and Wang Chapter 8

## FOCUS GROUP

*A type of **interview involving multiple respondents** where moderator asks questions and facilitates discussions among group*

<b>PROCEDURES</b>	
<ul style="list-style-type: none"> <li>• Moderator asks questions and <b>facilitates the discussion</b>; remains neutral to responses and discussion</li> <li>• Observer <b>records the discussion</b>; video and/or audio with notes recommended</li> <li>• Incentives often provided for participation</li> <li>• Can be online or face-to-face</li> <li>• Questions and order <b>developed in advanced</b></li> <li>• Environment should be orchestrated for neutrality and confidentiality, but also <b>convenient and comfortable</b></li> <li>• Sample should be <b>representative of a larger study group</b></li> <li>• Start with general questions and become more specific/ interesting after respondents are comfortable in the group setting</li> <li>• Generally qualitative analysis, may use frequency analysis for introductory questions. Often used in conjunction with one-on-one interview analysis or survey to validate findings</li> </ul>	
<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>• Can be both explanatory and confirmatory</li> <li>• Can produce stimulating discussions not possible in a survey</li> <li>• Can supplement other methods</li> <li>• More efficient than one-on-one interviews</li> </ul>	<ul style="list-style-type: none"> <li>• People may be reluctant to oppose majority view (peer pressure)</li> <li>• People may be influenced by others' opinions</li> <li>• May not get nuanced and detailed personal responses</li> <li>• May be expensive</li> </ul>
<b>TYPES OF STRATEGIES</b>	<b>RELATED METHODS</b>
	Survey Observation Experiential Collage
<b>RESOURCES</b>	
Sommer and Sommer Chapters 8 and 15 Groat and Wang Chapter 8	



## EXPERIENTIAL COLLAGE

*A method to determine people's **emotional connections to a place** through the development of **themes from images** combined by the participant into a graphic story*

### PROCEDURES

- Organize **collage workshop** for participants; show examples and techniques, discuss collage principles
- Discuss Collage-making Principles with the participants (see attached image for Collage Principles)
- Give participants a **'theme' to follow based on your research question**
- Give materials to use: magazines with images, foam core board
- Conduct **post-collage interviews** (why participants made their collages in certain ways)
- Analysis:
  - **Trace** each item
  - Overall **story** told and sequence
  - Observe **mini-collages** within larger one
  - **Reasons** for selecting images used
  - Collage **principles** used
- Look for 'themes'

### STRENGTHS

- Easy to learn and perform
- Materials are inexpensive and readily available
- Multi-dimensional way of expression
- Can express multiple views of a situation within one collage
- May provide background for interview
- Personalize expression

### WEAKNESSES

- Participants may over emphasize a situation
- Participants may attempt to create 'art'
- Researcher may over read collage and misinterpret meaning
- Expressions and messages may be limited by available materials

### TYPES OF STRATEGIES

### RELATED METHODS

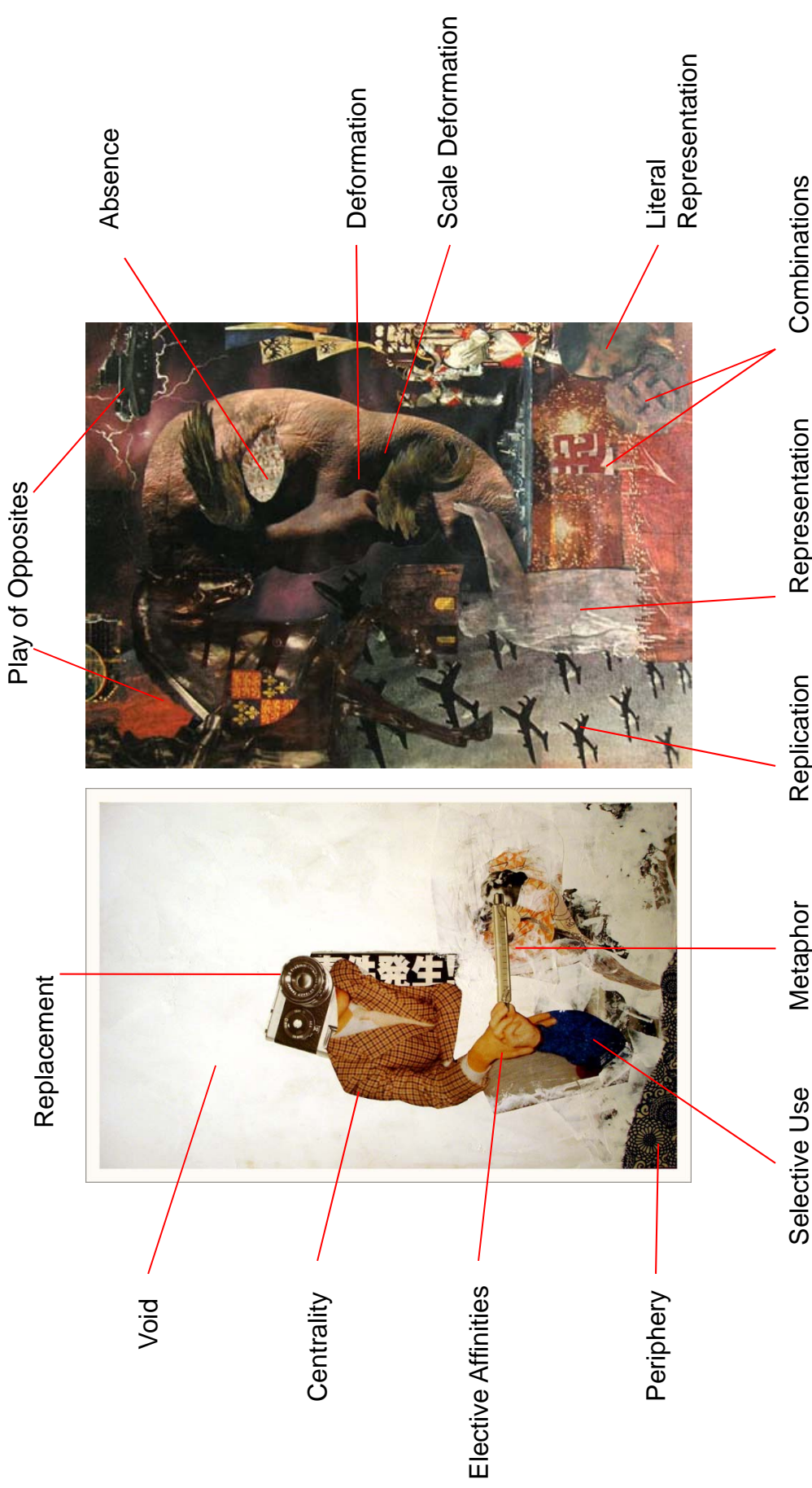
Interview  
Survey

### RESOURCES

Karen Keddy (2006) Embodied professionalism: The relationship between the physical nature of nursing work and nursing spaces. Unpublished Doctoral Dissertation. University of Wisconsin-Milwaukee.

# Experiential Collages

## Collage Principles:



Source: Karen Keddy (2006) Embodied Professionalism: The relationship between the physical nature of nursing work and nursing spaces. Doctoral Dissertation. University of Wisconsin-Milwaukee.

## OBSERVATION

*'people watching' method to note and understand people's behavior in places and how places are used*

### PROCEDURES

- 3 main types:
  - **Casual: eyeball inspection;** useful in early stages of most behavior based studies
  - **Systematic: in-depth,** prolonged observation; often requires multiple observers
  - **Participant: observer becomes participant** in activity studied; use own experiences
- Conduct casual observation or 'eyeball' inspection to **identify base behaviors** and understand the setting
- **Specify question** to be answered; develop categories of behaviors/ actions to observe
- Design the **instruments** (plans, checklists, categories, coding system, etc.)
- **Train observers** to understand and use instruments
- Pilot **test**
- **Revise** instruments and procedures as necessary, run another pilot test
- Develop **sampling** plan (times, locations)
- Collect **data** (observe, take notes, draw behaviors on the plan, etc.)
- Use field notes, video/photo/time-lapse record, maps, plans to record observations
- Make sure plans, maps, etc are **keyed to time and location**
- Observer should **record their own impressions** of what see, hear, smell, feel, think

### STRENGTHS

- Can be used with other methods
- Mostly unobtrusive, does not require interaction with people (subjects)
- Economical

### WEAKNESSES

- Time consuming
- Results can be varied and hard to discern patterns
- Must be careful of 'going native' to avoid bias (in participant observation)
- Behaviors may be difficult to contextualize outside of activity/ situation

### TYPES OF TECHNIQUES

Behavioral Map  
Trace Measures

### RELATED METHODS

Interview  
Survey

### RESOURCES

Sommer and Sommer Chapters 4 and 15  
Groat and Wang Chapter 7

## BEHAVIORAL MAP

*Mapping systematic observations of how people **behave/ arrange themselves in space** (place-centered) or **how specific people use a place** (people-centered)*

### PROCEDURES

- **Place-centered mapping**
  - Conduct casual observation, develop coding system and categories, pilot test
  - Draw a **plan diagram of the place** with all features that may affect behavior
  - Select the **best vantage point** from which to make observations
  - Record **behavior of people** during the selected time period(s)
  - Observe during **all times** how the place is used
  - Record **what people are doing** when you first see them; skip what they do next (create cross section of activity)
  - Analysis should **combine individual maps into composite** to show location, density, and usage for all time periods
- **People-centered mapping**
  - **Identify people** to follow and obtain permission
  - Observe **people in stages**, slowly increasing observation time over period; may be continuous or periodic observation
  - Do not make 'friends' ; **remain objective**
  - **Stop** observation when it is clear that the behavior is **consistent or predictable**
  - Transfer **data to map/ plan** diagram of place
  - Analyze **behavior range and settings**

### STRENGTHS

- Provides deep meaning to behavioral study
- Easy to conduct
- Inexpensive

### WEAKNESSES

- Does not indicate *why* behavior happens, only the conditions under which it does
- Can be intrusive
- Tiring and time-consuming

### TYPES OF TECHNIQUES

Mapping  
Video recording  
Time-laps camera

### RELATED METHODS

Interview  
Observation  
Trace Measures

### RESOURCES

Sommer and Sommer Chapters 4, 5, 15  
Groat and Wang Chapter 7

## TRACE MEASURES

*Record of **the physical remains of interactions and uses** of a place, either to examine what is added (**accretion**) or worn/ removed from a place (**erosion**)*

### PROCEDURES

- **Select the area** to be studied
- Conduct **casual observation**
- Develop **categories and classifications** (types, style, form etc)
- Sample **the time** (once or periodic)
- Record **the data using counts**, photos, etc
- Do **content analysis**

### STRENGTHS

- Inexpensive
- Can be short-term or long-term study
- Precision can be increased through systematic monitoring
- Can provide longitudinal record of people & place

### WEAKNESSES

- Does not necessarily depict true natures of places & people
- Absence of trace measures does not mean absence of behaviors
- Can influence people's behaviors over time
- Requires in-depth knowledge of people and place
- Traces may be the result of multiple, unidentifiable scenarios

### TYPES OF STRATEGIES

### RELATED METHODS

Archival research  
Behavior Map  
Observation  
Content Analysis

### RESOURCES

Sommer and Sommer Chapters 5 and 15  
Groat and Wang Chapter 7

## CONTENT ANALYSIS & VISUAL DOCUMENT ANALYSIS

*technique to study the **content and structure** of written or spoken material to **quantify trends and biases***

### PROCEDURES

- Use **available materials** (generally mass media)
- **Avoid bias** in the selection of resources; use systematic selection process
- Create **categories** that are reliable to the topic for research
- Review resources and **categorize**.
- Use scoring to **rate prevalence of trends and biases**. Scoring should be reliable and easy to replicate.
- Allow trends to develop, **do not assume to find a trend**. This will bias the results.
- May use **multiple categories** for sorting data.
- Analysis is **descriptive and quantitative not explanatory**; you can describe a trend that appears but not why it happens.

### STRENGTHS

- Material readily available
- No need for interaction with subjects
- Well-suited for cross-national comparison
- Well-suited to examine trends over long period of time

### WEAKNESSES

- Results are purely descriptive; reveal what but not *why*
- Results do not reveal impact of content on an audience
- Research is restricted to materials readily available
- Deals with communication materials, not outside reality

### TYPES OF STRATEGIES

### RELATED METHODS

Trace Measures  
Archival Research  
Literature Review

### RESOURCES

Sommer and Sommer Chapters 11 and 19  
Groat and Wang Chapter 8

## SIMULATION

*A controlled replication of real-world situations to virtually study in advance*

### PROCEDURES

- 3 types:
  - environmental simulation
  - games
  - role-playing
- May be **computer model/ actual scale model/ virtual reality**
- Situation and environment should be **constructed as identically as possible** to the actual scenario
- **Does not use representations** but must use a simulated situation as accurate to the real world scenario as possible
- Simulations can be **run and re-run** with changing variables to predict multiple outcomes
- Analysis should be able to **predict outcomes of actual scenario**

### STRENGTHS

- Captures complex real-world situations without reducing it to a limited number of variables (such as in experimentation)
- Keeps participants away from dangerous situations
- Useful for other research strategies like experimental and historical
- Usually inexpensive

### WEAKNESSES

- May be expensive, for real world mock ups
- Difficult to achieve the accurate replication of the real world
- Lack of natural spontaneity
- Does not predict cause and effect relationships; only a probable scenario

### TYPES OF STRATEGIES

Computer simulation  
Physical mock ups

### RELATED METHODS

Experimentation

### RESOURCES

Sommer and Sommer Chapter 7  
Groat and Wang Chapter 10

## EXPERIMENTATION

A **controlled** investigation of **causal** relationships between two or more variables

### PROCEDURES

- Generate **theoretical hypothesis** about the causal relationship to be studied (X will happen because of Y)
- Identify **independent variables** (manipulated by the researcher) and the **dependent variables** (outcome – created by independent variable)
- Identify sample of controlled subjects
- Create **controlled setting** for experiment
- Gather/ create experiment **instruments**
- **Observe the relationship** between the independent variable and dependent variable within the setting **without interfering**
- Analysis is **generalizable and limited to the causality of the outcomes**; does not ‘guess’ or evaluate behaviors.

### STRENGTHS

- Establishes a cause-effect relationship
- Easily replicated/ generalizable to other situations
- Control over outside factors

### WEAKNESSES

- Can be misapplied to situations
- Can be inappropriately simplified
- Not suited for holistic studies
- Not suitable for some socio-cultural phenomena that occur in natural, uncontrolled situations

### TYPES OF STRATEGIES

X – O

O – X – O

O – X – O

O - placebo - O (control group)

X = treatment

O = observation

### RELATED METHODS

Simulation

### RESOURCES

Sommer and Sommer Chapter 6

Groat and Wang Chapter 9



## ARCHIVAL RESEARCH

*uses primary and secondary sources to **examine historical trends and meanings of place** through determinative, contextual, inferential, and / or recollective evidence*

### PROCEDURES

- Identify and categorize **primary and secondary resources**; visit site; create work plan
  - primary= first person evidence; data from the person/environment under study;
  - secondary= data gathered afterward by someone studying the environment/ person
- Generate **survey of site** with building and landscape inventory (map)
- Create **representative sample** of buildings; search historical records
- Examine **data for trends, behaviors, or linkages** that may suggest causality or relationships with meaning
  - **Determinative** evidence: data that situates the precedent in **space and time**
  - **Contextual** evidence: data that situates the precedent in **physical context**
  - **Inferential** evidence: data that situates the precedent by **proximity or interpretation**
  - **Recollective** evidence: data that situates the precedent within people's **perceptions or memories**
- Establish **timeline/ chronology** or phenomenology of key events, influences, or factors in study
- Photo-documentation and measure drawings critical for survey and inventory; historical photo/ drawings important for key buildings and spaces
- Conclusions should be based on accurate chronology and social history, **not fiction**
- Narrative should be believable and based in recollections and data, **not serialized or sensationalized**

### STRENGTHS

- May help narrow research question
- May generate research question
- May identify range of methods for further research
- Provides insight into socio-cultural factors; provides depth of understanding to meaning
- Can be conducted off-site or from a distance

### WEAKNESSES

- Interpretation may be difficult to contextualize
- Resources may be difficult to find/ obtain
- May generate more questions than answers
- Credibility of resources may be questioned on 'accuracy' of memories, recollections, etc.
- Time-consuming

### TYPES OF STRATEGIES

### RELATED METHODS

Interview  
Literature Review  
Trace Measures

### RESOURCES

Sommer and Sommer Chapters 3 and 12  
Groat and Wang Chapter 6

## LITERATURE REVIEW & CONCEPT MAP

*integrated summary and critique of relevant published sources used to formulate **conceptual framework** and **derive conclusions** of research gaps and research limitations*

### PROCEDURES

- Use of **archival and current resources**: print, media, video, interviews, surveys, etc.
- Generally use **secondary resources**
- Integrate **summary with critique** of sources
- Divide review by **themes and sub-themes**; review can include critique of individual sources as well as a body of sources under one theme to generate large concepts and understand gaps
- Formulate **theories and conceptual map**
  - **Diagram topic** with sub levels for themes, sub themes, sources and potential connections
  - Literally **connect related themes** and ideas with sources
  - Identify **gaps, connections, questions**
- Derive **conclusions**
  - Theoretical **gaps and future research** possibilities
  - Limitations in **application**
  - Limitations in **research**
- Develop design guidelines

### STRENGTHS

- May help narrow research question
- May generate research question
- May identify/ critique range of methods for further research
- Can be conducted off-site or from a distance
- Grounds study into theory and context

### WEAKNESSES

- Resources may be difficult to find/ obtain
- May generate more questions than answers
- Time-consuming

### TYPES OF STRATEGIES

### RELATED METHODS

Archival Research

### RESOURCES

Sommer and Sommer Chapters 3 and 12  
Groat and Wang Chapters 3 and 6

## SKETCH MAP

An **Elicitation method** used to create a **mental representation** to reveal what people think of the structure of places & what place elements/attributes seem to be important for **spatial order, spatial structure, place-learning, and way-finding**

### PROCEDURES

- **Identify place** to study and select participants (either by their proximity or familiarity with place)
- Ask participants to **sketch a map** of the place on a piece of paper
- Have the participant **identify and label all place elements** they include in the map
- Analysis of identified elements:
  - Paths, Nodes, Landmarks, Districts, and Edges (Kevin Lynch's categories)
  - The primary '**organizing/ ordering**' element
  - The starting point / **the first element drawn**
  - **Patterns of the sketch** (linear, radial, concentric, scattered, grid, etc)
- Interpretation of maps:
  - Selected elements indicate their **saliency** in the environmental structure
  - Elements are selected for **significance** (visual or symbolic)
  - **Simplifications** may indicate that actual situations do not seriously matter
  - Selected elements/area indicate the **degree of familiarity/knowledge** of the place
  - Degree of familiarity may be through actual/direct or indirect contact (maps, readings)
  - Shared/ Public Mental Map of a place can be derived by aggregated analysis/overlying

### STRENGTHS

- A useful tool for research into:
  - morphology;
  - way-finding; sense/image of a place;
  - environmental learning abilities (spatial cognition);
  - perceptual properties of places;
  - preference of places; etc
- Use these 'mental maps' to learn, structure, organize, and navigate through places
- Inexpensive
- Easy to do

### WEAKNESSES

- Participants may not want to draw because of fear, lack of drawing ability
- Drawing skills may affect the degree of information given in the sketch
- Sketch map may reflect respondent's familiarity of maps of place; not with actual place
- Size of the paper given to draw the map may hinder the degree of information drawn
- Place where the interview takes place (map is drawn) can affect the information drawn
- Mental Map does not necessarily represent the actual reality of the place
- Mental maps show individual representations; not shared/public representations

### TYPES OF STRATEGIES

Map-making, Model Making, Verbal Directions

### RELATED METHODS

Focus groups      Interview  
 Experiential Collage

### RESOURCES

*Image of the City* by Kevin Lynch; *House as Mirror of Self* by Clare Cooper Marcus; *Some Place Like Home* by Toby Israel; Groat and Wang Chapter 7; Sommer and Sommer Chapter 15