Steps to the Evaluation Research Process

Step 1 – Identify Objectives

Step 2 - Formulate Research Questions Based on Those Objectives

Step 3 – Operationalize Concepts to Measure Questions
  • Valid and Reliable Indicators

Step 4 – Decide on Sampling Technique
  • Draw Sample

Step 5 – Select Data Collection Technique
  • Collect Data

Step 6 – Analyze Data

Step 7 – Write up the Report
Steps to the Evaluation Research Process

This Power Point Will Focus on Step 5

Step 5 – Select Data Collection Technique
  • Collect Data
Types of Data Collection Techniques

• Experiment
  • Laboratory Experiments
  • Field Experiments
  • Field Trials

• Survey Research
  • Mail Out
  • Manually Distributed and Self Administered
  • Face to Face
  • Internet
  • Telephone

• Field Research
  • Content Analysis
  • Participant Observation
  • Intensive Interview

• Secondary Data
Laboratory Experiments

• Purpose

• For a Relationship to be “causal” then
  • The independent variable (X) has to come before the dependent variable (Y) in time (X before Y)
  • X and Y have to be related
  • There is no “Z” variable that explains the relationship between X and Y

• Laboratory Experiments help us establish a causal relationship because we can
  • Control the time order of X and Y
  • Control for any “Z” variables (other influences)
Classical Design

• Experimental Group
  • Pre-test
    • Measure the dependent variable
  • Introduce intervention
  • Post-test
    • Measure the dependent variable again

• Use a Control Group
  • Pre-test
    • Measure dependent variable
  • Post-test
    • Measure dependent variable again

• Compare post-test for control group and experimental group
Field Experiments

• Field Trials OR Field experiments are Similar to Laboratory Experiments EXCEPT:

  ➢ They are conducted in the “real” world – not in laboratories.

  ➢ They are generally used when, for practical reasons, laboratory experiments cannot be used. For instance:

    ➢ When the program or intervention lasts longer than a few hours and/or cannot occur within a laboratory.
    ➢ When participants cannot/won’t come into a laboratory.

  ➢ They generally take considerably longer than laboratory experiments, and in fact, it may take months or years to conduct laboratory experiments.
Types of Data Collection Techniques

• Experiment
  • Laboratory Experiments
  • Field Experiments
  • Field Trials

• Survey Research
  • Mail Out
  • Manually Distributed and Self Administered
  • Face to Face
  • Internet
  • Telephone

• Field Research
  • Content Analysis
  • Participant Observation
  • Intensive Interview

• Secondary Data
Survey Research

• Purpose
  • Assess attitudes or self reported behavior of large groups of people at single point in time

• 5 Most Common Types
  • Mail
  • Hand Distributed and Self administered
  • Face to Face
  • Telephone
  • Internet

• Common Uses*
  • Evaluation Research
  • Marketing Polls
  • Opinion Polls
  • Election Polls
  • The Census

• Strength of All
  • Can obtain little information about large group of people

*Please NOTE – Surveys are the most common types of data collection. Even those using the experimental method often use some type of survey/questionnaire to measure impact of experimental condition,
Five Different Types of Survey Instruments

- Mail Out
- Hand Distributed, but Self Administered
- Face to Face Interview
- Telephone Surveys
- Internet or on-line Surveys
Comparison of Survey Instruments

The Four Different Survey Instruments can be Compared Based on the Following:

- **Depth of Information**
  - Which provides the most in-depth answers?

- **Sensitive Questions**
  - Which is best when asking very personal or sensitive questions (i.e., questions about sexual behavior)?

- **Response Rates**
  - Which yields the highest response rate?

- **Cost and Efficiency**
  - Which is most cost and time efficient?

- **Validity**
  - Which yields the most accurate data (i.e., not skewed by social desirability)?

- **Reliability**
  - Which instrument yields the most consistent information?

The following slides rank these instruments with the one that is most preferable at the top.
Comparison of Survey Instruments

- Depth of Information
  - ✓ Face to Face
    - ✤ You Can Probe
    - ✤ You Can Discern Nonverbal “cues”
  - ✓ Telephone
    - ✤ You can Probe
  - ✓ Internet*
  - ✓ Mail Out *
  - ✓ Hand Distributed and Self Administered*

* With all three of these you are limited to the questions on the survey. With the self administered (i.e., passed out in a classroom) respondents are often constrained by time.
Comparison of Survey Instruments

- **Personal or Sensitive Questions**
  - Can lead to a lack of response or socially desirable responses.
  - If you want respondents to provide valid responses then
    - Make certain surveys are anonymous or, at least, that answers are confidential.
    - Create social distance between the respondent and those conducting the study.

- ✔ Mail Out Surveys that do NOT require a return address.

- ✔ Internet

- ✔ Hand Distributed, and Self Administered
  - ✔ May be concerned about others watching them

- ✔ Telephone

- ✔ Face to Face
Comparison of Survey Instruments

**Response Rates**

- If you want high response rates, then *decrease* social distance

- Face to Face

- Telephone Interviews can vary depending on
  - If respondents have Caller ID response rates go down.
  - Having cell phones make it difficult to draw a sample.

- Mail out or Hand Distributed
  - Is approximately 17% to 41%
  - You can provide incentives to increase response rates.

- Internet
  - Varies widely depending on Population
Comparison of Survey Instruments

Cost and Efficiency

- Internet
  - If respondents are computer literate and have computer access then it is time and cost efficient once initial set-up is completed.

- Hand Distributed and Self Administered
  - Must pay someone to input data or do it yourself.

- Mail Out
  - Costs include
    - Mailing Costs
    - Must pay someone to input data or do it yourself

- Telephone
  - Costs include long distance phone costs
  - Must pay interviewers who can also input data as they interview

- Face to Face
  - Must pay interviewers
  - Must pay travel expenses for interviewers
  - Pay someone to input data or do it yourself
Comparison of Survey Instruments

- **Validity (Accuracy of Responses)**
  - Face to Face
    - Can obtain both verbal/nonverbal information
      - Observe respondents (i.e., their dress)
    - Can clarify misunderstandings
    - Can probe
  - Telephone
    - Can probe
    - Can clarify misunderstandings
  - Hand Distributed and Self Administered
  - Mail Out
  - Internet
Comparison of Survey Instruments

- **Reliability (Consistency of Responses across respondents)**

  ✓ Mail out
  - Survey is exactly the same for every respondent.

  ✓ Internet
  - Same as above

  ✓ Hand Distributed/Self Administered
  - Same as above

  ✓ Telephone
  - Different voice inflections can influence answers

  ✓ Face to Face
  - Different voice Infections can influence answers
  - Physical appearance/characteristics of different interviewers can influence answers
Field Research

Types of Field Research
- Participant Observation – observe while participating in activities
- Intensive Interviews – use interview guide to elicit information
- Content Analysis – physical aspects of material objects

Most Common Types of Sampling Designs – generally nonrandom
- Theoretical Sample
- Snowball Sample
- Convenience Sample

Units of Analysis – depends on type of Field Research
- Content Analysis – aspects of material objects
- Participant Observation – individuals or groups
- Intensive Interviews – individuals or focus groups

Most Common Goals of this Type of Research
- Explore – Collect information/data about groups that haven’t been studied before
- Generate generalizations to be used in theory construction (induction)
- Gather information/data about groups who aren’t easily accessible
- Gather information/data about social processes – look at change in human social behavior over time
- Gather in-depth information to provide more detailed understanding of human social behavior – supplements/compliments other types of research
- Test theories and/or sensitizing concepts

Types of Analysis
- Qualitative analysis
  - Develop categories/types of behavior/social phenomena
    - Compare across types (i.e., these types occur together)
    - Compare across time (i.e., these types precede these types)
- Analysis and data collection often occur simultaneously
- Examine what CAN happen – not what tends to happen

Weaknesses
- Time Consuming
- Mentally Exhausting
- Expensive
- Subjective
  - Validity and reliability
  - Lack of intersubjectivity
Content Analysis

I. Unit of Analysis - aspects of materials
   A. Newspapers
   B. Physical objects
   C. Videotapes
   D. Photography
   E. Letter/diaries

II. Procedures
   A. Guided by Theory
   B. Open to observations
   C. Compare and contrast - look for patterns

III. Disadvantages
   A. No representative sample
   B. Reliability - data analysis is subjective
Content Analysis
Examples of Studies

• Content of Letters Sent Home by Immigrants
  - Studied Polish immigration

• Content of Newspapers
  - Studied depiction of minorities across time perception

• Content of kitchen cupboards/bathroom cupboards
  - Studied gender differences in terms of hygiene/diet

• Content of Trash Cans
  - Studied consumption by social class

• Content of magazines
  - Studied differences in terms of depiction of males/females

• Content of videotapes
  - Studied social class/race differences for PTA conferences
Specific Example – Studied dietary differences across gender by looking at the contents of men’s and women’s plates in restaurants.

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>Chicken</td>
</tr>
<tr>
<td>Chocolate Cake</td>
<td>Fresh Fruit</td>
</tr>
<tr>
<td>Mashes Potatoes/Gravy</td>
<td>Baked Potato</td>
</tr>
<tr>
<td>Coke</td>
<td>Diet Coke</td>
</tr>
</tbody>
</table>

Conclusions

Men and women eat differently. Women eat more low fat diets, while men eat diets that will result in greater energy and greater satisfaction in terms of taste.
Specific Example – Study how women have been depicted in magazines over time

Steps

- Step 1
  - Decided on Objectives/Questions
    - Does the depiction of female models in popular magazines differ over time?

- Step 2
  - Drew a sample of the magazines.

- Step 3
  - Decided on specific Indicators (i.e., race, age weight etc.)

- Step 4
  - Constructed codebook (example on next slide)

- Step 5
  - Constructed a coding sheet (example on slide 21)
  - Collected and input data
  - Analyzed data
## Code Book

<table>
<thead>
<tr>
<th>Mg: Magazine</th>
<th>1 = M</th>
<th>Mc Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = L</td>
<td>Ladies Home Journal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yr: Year</th>
<th>1 = 60</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = 70</td>
<td>1970</td>
</tr>
<tr>
<td></td>
<td>3 = 80</td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td>4 = 90</td>
<td>1990</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P#: Page Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Race:</th>
<th>1 = W</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = B</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>3 = H</td>
<td>Hispanic</td>
</tr>
<tr>
<td></td>
<td>4 = A</td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td>5 = O</td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age:</th>
<th>1 = Y</th>
<th>Young</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = M</td>
<td>Middle-age</td>
</tr>
<tr>
<td></td>
<td>3 = O</td>
<td>Old</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight:</th>
<th>1 = A</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = O</td>
<td>Overweight</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Body:</th>
<th>1 = F</th>
<th>Face only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = FB</td>
<td>Face and Body</td>
</tr>
<tr>
<td></td>
<td>3 = B</td>
<td>Body only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus:</th>
<th>1 = Fa</th>
<th>Family/children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = H</td>
<td>Housework, cleaning, etc.</td>
</tr>
<tr>
<td></td>
<td>3 = J</td>
<td>Job/Office work</td>
</tr>
<tr>
<td></td>
<td>4 = B</td>
<td>Body of woman</td>
</tr>
<tr>
<td></td>
<td>5 = Fr</td>
<td>Friend</td>
</tr>
<tr>
<td></td>
<td>6 = M</td>
<td>Man/Romantic interest</td>
</tr>
<tr>
<td></td>
<td>7 = O</td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relevant:</th>
<th>1 = Y</th>
<th>Yes, the image of the women is relevant to the product</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 = N</td>
<td>No, the image of the women is NOT relevant to the product</td>
</tr>
<tr>
<td>#</td>
<td>Mg</td>
<td>Yr</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

**CodeSheet**
Another Example

Analyzing Parent/teacher Interactions.

Steps

- Step 1
  - Stated Objectives – Do parent/teacher conference vary across the social class and race of parents?

- Step 2
  - Video taped parent/teacher conferences

- Step 3
  - Selected Indicators (numbers of interruptions and types of questions) that would measure the type of interaction.

- Step 4
  - Constructed a coding scheme (see next slide)

- Step 5
  - Used coding scheme to rate parent/teacher conference

- Step 6
  - Input and analyzed data
<table>
<thead>
<tr>
<th>Interruptions</th>
<th>Teacher</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTEMPT MADE BY TEACHER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive - type 1 (complete, agree, ask positive elaboration)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative - type 2 (disagree, object, change topic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral - type 3 (no evaluation, too short)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTEMPT MADE BY PARENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive - type 1 (complete, agree, ask positive elaboration)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative - type 2 (disagree, object, change topic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral - type 3 (no evaluation, too short)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Questions**

Type 1. Ask for advice or instructions (How can I do that?)
Type 2. Ask for clarification (Do you understand? Do you have questions?)
Type 3. Ask for information (When does summer school start?)
Type 4. Ask for opinion (What do you think?)

**Code type of question**

<table>
<thead>
<tr>
<th></th>
<th># of questions</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 1 (Advice)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 2 (Clarification)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 3 (Information)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 4 (Opinion)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 5 (Ask for question)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 1 (Advice)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 2 (Clarification)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 3 (Information)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 4 (Opinion)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 5 (Ask for question)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Participant Observation

Purpose

- Analyze Social Processes While they are Actually Occurring within the Social Environment. For example
  - Communication process within marriages
  - Organizational process within community after flood
  - Socialization process within families
  - Decision making process in city council meeting
Participant Observation

- Steps in Data Collection Process

- Step 1 - Select a Sensitizing Concept

- Step 2 - Observe phenomena

- Step 3 - Write down Observations

- Step 4 - Look for Patterns across Observations

- Step 5 - Use Inductions to Draw Generalizations
Participant Observation

➢ A Closer Look at Step 1 in Data Collection Process

➢ Step 1 - Select a Sensitizing Concept - Examples
  • Communication process within marriage
    • Sensitizing concept – Gender differences in way men and women ask questions.
  • Organizational process within community after flood
    • Sensitizing concept – Types of leadership styles
  • Socialization process within families
    • Sensitizing concept – Acquisition of language for twins
  • Decision making process in city council meeting
    • Sensitizing concept – Effectiveness of influence skills
Participant Observation

A Closer Look at Step 2 in Data Collection Process

Step 2 - Observe phenomena - Look for

• Common Occurrences
  • What events are common occurrences?
  • Example – Women usually ask open ended questions while men ask closed ended

• Contrasting Events
  • What events are different or unusual?
  • Example – Wives tend to speak less than husbands, EXCEPT when the wife is older than the husband.
Participant Observation

- Tools for Observation
  - Tape Recorders
  - Video Cameras
  - Note Taking
    - Describe Units
      - Or units within units
      - Teachers
      - Schools
    - Note unusual aspects
    - Note common aspects
    - Try to record quotes as much as possible
    - Start with chronological report of what you do
    - THEN record what you SEE
Participant Observation

³ One of the Best Ways to Learn how to “do” participant observation is to read books based on participant observation.

³ Examples of Participant Observation
  • “Man’s Search for Meaning” – Holocaust
  • “The Working Poor” (observations and intensive interviews) – Poverty in America
  • “Code of the Street” – Race Relations
  • “Black Like Me” – Race Relations
  • “Street Corner Society” - Gangs
  • “Turning Stones” – Child Abuse
  • “Ordinary Resurrections” - Education
Commonly Asked Questions

Where should I write my journal?

✓ You should have a small spiral notebook that you keep in your purse/pocket/backpack etc. You will keep this notebook with you, and record "memory sparkers". "Memory sparkers" are short notes that will remind you of relevant events. You should record these as soon as possible. You will then write about the events at home that evening.

✓ You will also need somewhere to record events when you arrive home in the evenings (before you sleep!). These entries may be as short as one sentence or as long as several pages. You can do one of the following:
  ❖ Tape record your journal
  ❖ Type your journal on a computer
  ❖ Handwrite your journal in a notebook (Please write legibly!)

Who should keep a Journal?

✓ Every intern should keep a journal, but only those who are doing a qualitative research project will be required to turn it in.
✓ Anyone who wants to maximize the benefits from their internship should keep a journal.

When should I write in my Journal?

Your data will be much more accurate if you write down your notes BEFORE you sleep on it!!

✓ Record "memory sparkers" and relevant quotes in your small spiral notebook as soon as possible.

What should I write in my Journal?

✓ Write DOWN exactly what you see. Do not Interpret!!
Next you will write what you OBSERVE. At first this will include everything you see, but once you have identified a research questions, then quickly narrow down your observations to address your research question.

Write down EXACTLY what you observe. Don’t infer or make assumption about motivation, emotional states etc. Be as specific as possible. Describe events in as much detail as possible.

In a different pen/font you can then write down the following:

- Your interpretation of the events your observed
- Generalizations based on your specific observations. Note patterns – commonalities across people, time and place. Also note obvious differences (which of these things is not like the other ones).
- Notes to guide future observations. For instance, you might decide you should pay more attention to gender differences in the way people react to criticism from their supervisor.

As you continue this process, your notes should become more specific and more details – more centered on the research question you have developed.

Who Should See my Journal?

The entries in your journal should be kept confidential. Therefore you should do the following:

- Do not record “classified” information in your journal.
- Do not allow ANYONE to read your journal.

- You cannot interview clients or children under 18. You can interview employees as “experts”. This means you cannot ask them about their personal lives. Thus, there should NOT be any of these types of interviews in your journal!
- Use pseudonyms in your journal. This is a safety precaution.
- Use pseudonyms that are easy for your to identify/attach to “real” names, places and people. You will use these same pseudonyms in your paper.
Focus Groups

- Purpose

  - Generate ideas/perspectives/solutions

- Often associated with evaluation research

  - Generate different points of view about the effectiveness of the program
    - From the perspective of the administrators of the program
    - From the perspective of the participants in the program
    - From the perspective of outside observers
Focus Groups

Steps

Step 1
- State an objective

Step 2
- Develop a focus group guide
- Ask open ended questions – probe
- Sometimes it can be a “brainstorming session”

Step 3
- Arrange for a group of participants (often leaders) to meet and discuss questions on focus group guide.
- Have facilitator who asks questions
- Record answers
- Analyze answers – can occur simultaneously while collecting information
Intensive Interviews

- **Purpose**
  - Collect a lot of information from a small number of people.
  - Generally narrow in focus
  - Gain in-depth understanding of a specific phenomena or topic

- **Tools**
  - Intensive Interview guide
    - Open ended questions
  - Tape Recorder to tape interview
  - If it is not too obtrusive, you could use a videotape.
Intensive Interviews

- Steps
  - Step 1
    - State objectives of study
  - Step 2
    - Develop an intensive interview guide
    - Use mostly open ended questions
  - Step 3
    - Step up an appointment with participant
  - Step 4
    - Have face to face or telephone interview
    - When possible tape record interview
  - Step 5
    - Look for patterns
    - Use induction to draw generalizations
    - Input data
Intensive Interviews

- Characteristics of Successful Interviewer

  - Dress – inconspicuously
  - Have Central Purpose in Mind
  - Develop listening skills
  - Record socio-demographic characteristics first
  - Use mostly open ended questions
  - Probe
  - Put sensitive questions at end
  - Make commitment to complete interview
  - Don’t Ask unnecessary questions
  - Plan on 20 plus minutes
  - Use Common Sense
Intensive Interviews

SKILLS

1. Always keep research questions/theoretical concepts in mind
2. Ask open ended questions and probe
   A. guide conversation
3. Use active listening skills to elicit responses
   A. nonevaluative backchanneling (oh, uh huh, I see)
   B. ask encouraging statements
   - How do you mean?
   - Can you give me more details?
   - Can you tell me more?
   - I'm not sure I understand?
   - How did that make you feel?
   C. use reflective listening
   a. ask for clarification
   b. don't JUST parrot or echo rather restate/validate
   c. watch carefully for confirmation or correction - accept correction
4. Listen to LEARN - Learn so you can understand (Covey)

PREPARING TO INTERVIEW

1. Dress inconspicuously - blend into environment
2. Create interview guide
   A. Questions should be direct/straightforward/open ended.
   B. Avoid slang, acronyms, long and/or rarely used words (academese)
   C. Obtains necessary sociodemographic information
   D. Use informed consent form
   E. Save sensitive or possibly offensive questions until the end
   F. Conduct a pre-study (interview several friends).
3. Learn norms, slang terms of groups you are interviewing.
4. Set up a time and place that are conducive to interviews
CAUTION

- Institutional Review Board

- If you want to use your data to publish

- IF you are “researching” THEN you must

  - Take IRB certification exam on-line (USU website)
  - Complete and submit IRB forms
  - Have your study approved by the IRB
    BEFORE you start data collection process
Contact Information

• Dr. Carol Albrecht
  • Assessment Specialist USU Ext
  • carol.albrecht@usu.edu
  • (979) 777-2421