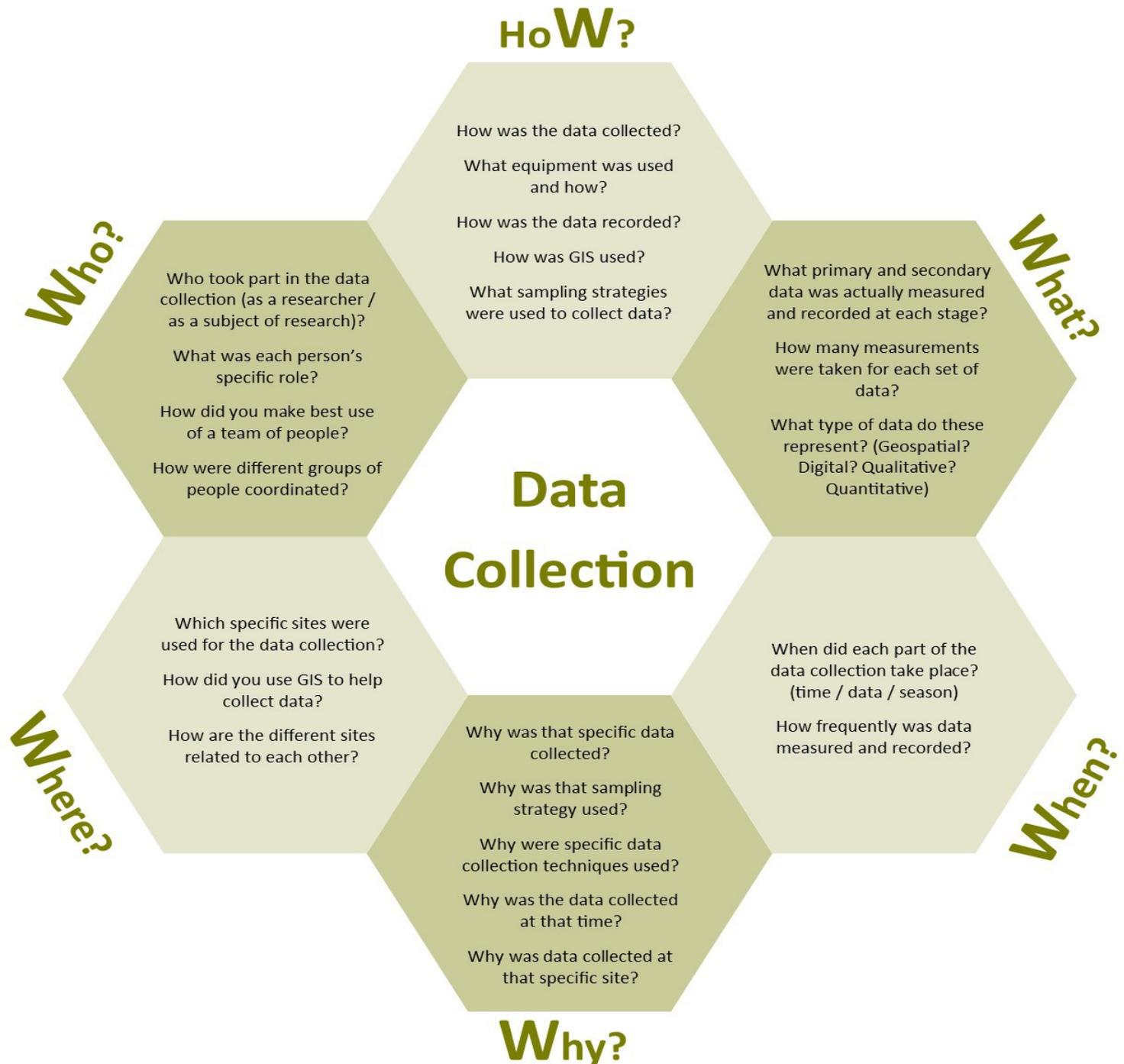


Week 10

Data Collection

Modified from PPT developed by Allen Rubin, Lin Fang & Jennifer L. Bellamy

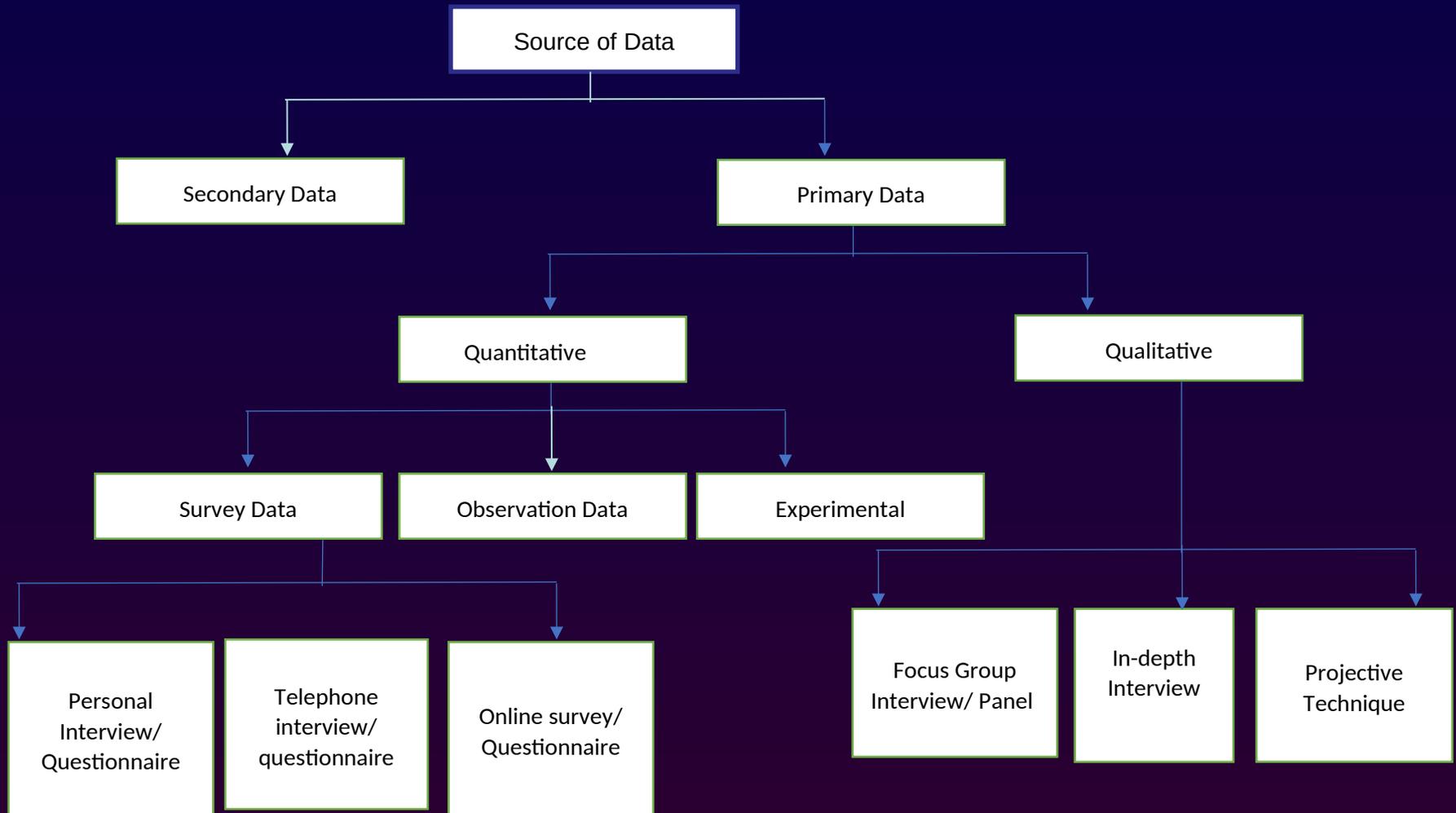
6W



Data Collection Procedures

- Once decided study design, data collection should be considered
- Decide what to collect and then how to collect (verbal reporting, questionnaires, observation?)
- Make sure clear criteria for selection
- Assure data is reliable, consistent, and accurate
- In writing, discuss how relevant it can be in the research as well as its effectiveness

Data collection Techniques



Sources of Data

- Primary sources- refer to information collected firsthand by researcher on the variables of interest for the research purposes
- Secondary sources- refer to information gathered by someone else and from sources already existing through the statistical process

Primary Sources of Data

- Individuals
 - Quantitative Data
 - Survey (Questionnaires and interview)
 - Participant observation
 - Experiment
 - Personal Interview- unstructured, superficial and short interview
 - Qualitative Data
 - In-depth Interview- structured and time-consuming interview
 - Projective Techniques (e.g., Asking meaning of ambiguous image)
- Unobtrusive Measures
 - Not involve direct contact with the research participants (internal library data, web analytics, archival materials, etc.)

Primary Sources of Data

- Focus Groups (Qualitative Data)
 - Obtain respondents' impressions, interpretations, and opinions
 - Used for qualitative information and exploratory studies
 - Recently videoconferencing is also used
 - Meet one time
- Panels (Qualitative Data)
 - Meet more than once
 - Used when several aspects of a product are to be studied from time to time

Secondary Sources of Data

- Data from primary Sources; Collected by someone else through
 - Survey
 - Interviews
 - Questionnaires
 - Observation
 - Unobtrusive Measures
 - Etc.

Secondary Sources of Data

- Advantage
 - Savings in time and costs
- Disadvantage
 - higher chance of not meeting the specific needs related to research purposes

Data Collection Methods- Questionnaire and Survey

- questionnaire: a written set of questions
- survey: the form is a set of questions and interviews; But it includes process of collecting, aggregating, and analyzing the responses from those questions.

	Survey	Questionnaire
Individual questions	✓	✓
Delivery of questionnaire	✓	✗
Analysis of responses	✓	✗

Survey Research

- Used to describe both the characteristics of the respondents and the population they represent
- Descriptive, exploratory, and explanatory
- Doesn't focus on a cause-and-effect relationship, but on an association by **finding the significance** of association
- Most widely used methods
- Establish **validity and reliability** of measurement

Designing Questions Guidelines

1. Closed VS. open-ended questions

- Exhaustive and mutually exclusive

2. Wording of questions

- Simple, short, direct and clear
- Never use slang terminology

3. Avoid double-barreled questions

- “Should the state abandon its community-based services and spend the money on improving institutional care?”

Designing Questions

4. Culturally sensitive wording choice

5. Respondents Must be Willing to Answer

6. Questions Should be Relevant -

Study results are not useful if questions are not relevant to respondents

7. Short Items are Best

8. Avoid Words like No or not- easy misinterpretation

Designing Questions

9. Structure and Design of Questionnaires

- Be easy on the eyes and easy to complete
- Directions: clear & Precise
- Order: Begin with easy, interesting items, opinion first, factual later; Put sensitive questions at the end

Critically Appraising Quantitative Instruments: Questionnaires

- Spread out and uncluttered
- Format for Respondents
 - Use genuine boxes
- Contingency Questions
 - Respondents will only answer questions that are relevant to them

Have you ever smoked marijuana?

Yes

No

Filter question

Contingency question

If yes, about how many times have you smoked marijuana?

Once

2 to 5 times

6 to 10 times

11 to 20 times

more than 20 times

Circle one response for each of the following ten items.

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1. I feel that I am a person of worth, at least on an equal basis with others.	1	2	3	4
2. I feel that I have a number of good qualities.	1	2	3	4
*3. All in all, I am inclined to feel that I am a failure.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
*5. I feel I do not have much to be proud of.	1	2	3	4
6. I take a positive attitude toward myself.	1	2	3	4
7. On the whole, I am satisfied with myself.	1	2	3	4
*8. I wish I could have more respect for myself.	1	2	3	4
*9. I certainly feel useless at times.	1	2	3	4
*10. At times I think I am no good at all.	1	2	3	4

Surveys

- Surveys are one of the oldest methods of research
- Can be used for exploratory and explanatory research
- Best method for describing a population that is too large to observe directly

Mail Surveys

- Cover letter
- Monitoring returns
- Follow-up mailings

- Return rates can be increased when follow-ups are planned
- The higher response rate, the less significant response bias

Online Surveys

- Via email
- Through a website
- Adaptations to technological advances, such as smartphones
- Advantages
 - Quick and inexpensive
- Disadvantages
 - Questionable representativeness
 - Possible technical problems

When Conducting Online Surveys

- Use consistent wording
- Use plain, simple language
- Offer to share selected results
- Plan the time of day and day of week to mail
- Be aware of technical limitations
- Test incentives, rewards, and prize drawings
- Limit surveys to 15 minutes or less
- Don't force respondent to scroll down the screen for the URL for study location

Interview Surveys

- Interviewers ask the questions orally and record the answers
- Higher response rates than mail surveys
- Minimizes “don’t know” or “no answers” responses
- Allows interviewers to observe respondents while asking questions

General Guidelines for Survey Interviewing

- Appearance and demeanor
 - Dress and grooming
 - Pleasant, genuine demeanor
- Familiarity with questionnaire
- Following question wording exactly

General Guidelines for Survey Interviewing

- Recording responses exactly
 - Use marginal comments to explain responses that are not conveyed
- Probing for response
 - Probes must be completely neutral
 - get the respondent to answer a question more fully
 - “Would you lean more toward [answer] or [answer]?” “Just your best guess is fine”

Coordination and Control

- Train and supervise interviewers
- Provide specifications
- Conduct demonstration interviews
- Involve “real” interviews

Telephone Surveys

Advantages

- Money and time
- Interviewers have more support
- Personal safety

Disadvantages

- Bogus surveys
- Survey discontinuation
- Answering machine
- Caller ID
- Cell phones

Survey Research: Strengths

- Describes the characteristics of a large population
- Makes a large sample feasible
- Makes findings more generalizable
- Enables analysis of multiple variables
- Flexible analysis
- Uniform measurement

Survey Research: Weakness

- Fitting of round pegs into square holes
- Superficiality
- Lack of context
- Inflexibility in design
- Artificiality

Combining Survey Research Methods and Qualitative Research Methods

- Combines the strengths of both approaches
- Offsets their weaknesses

When Asking Questionnaire Items

Please don't

- skip questions that the respondent cannot answer and return to them at the end of the interview.
- react to a question after the respondent has answered to show interest
- give help on difficult questions.
- summarize the respondent's answers so that they are more meaningful answers.
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