Unit 5: Collecting data
Collect data

Who
What

Evaluation questions

Indicators: Evidence that answers your questions

Sources of information: program records, individuals, public

METHODS
Source of evaluation information

- Existing information
- People
- Pictorial records and observations
Quantitative: numbers  breadth  generalizability
Qualitative:  words  depth  specific

Remember, "Not everything that counts can be counted."
Paradigm dimensions

Qualitative
• Naturalistic inquiry
• Holistic, system-wide perspective
• Uniqueness and diversity
• Inductive reasoning
• Qualitative data (words)
• Qualitative methods – unstructured, open-ended
• Purposeful sampling
• Emergent, flexible design
• Content analysis
• Extrapolations

Quantitative
• Scientific/experimental design
• Independent, dependent variables
• Standardized, uniform
• Deductive reasoning
• Quantitative data (numbers)
• Quantitative methods – structured, standardized
• Probabilistic, random sampling
• Fixed, controlled design
• Statistical analysis
• Generalizations
## Quantitative methods – Qualitative methods

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>Focus groups</td>
</tr>
<tr>
<td>Questionnaires</td>
<td>Unstructured interviews</td>
</tr>
<tr>
<td>Tests</td>
<td>Unstructured observations</td>
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<tr>
<td>Existing databases</td>
<td>Unstructured observations</td>
</tr>
</tbody>
</table>
Often, it is better to use more than one method.

Mixed methods for one program

• Log of activities and participation
• Self-administered questionnaires completed after each workshop
• In-depth interviews with key informants
• Observation of workshops
• Survey of participants
Are the data reliable and valid?

- Validity: Are you measuring what you think you are measuring?
  - Example:

- Reliability: if something was measured again using the same instrument, would it produce the same (or nearly the same) results?
  - Example:
“Trustworthy” and “credible” data

What do these words mean relative to your evaluation information?

How can you help ensure that your evaluation data are trustworthy and credible?
Common data collection methods

- Survey
- Case study
- Interview
- Observation
- Group assessment
- Expert or peer reviews
- Portfolio reviews

- Testimonials
- Tests
- Photographs, videotapes, slides
- Diaries, journals, logs
- Document review and analysis
When choosing methods, consider…

- **The purpose of your evaluation** – Will the method allow you to gather information that can be analyzed and presented in a way that will be credible and useful to you and others?

- **The respondents** – What is the most appropriate method, considering how the respondents can best be reached, how they might best respond, literacy, cultural considerations, etc.?
Consider…

• Resources available. Time, money, and staff to design, implement, and analyze the information. What can you afford?

• Type of information you need. Numbers, percents, comparisons, stories, examples, etc.

• Interruptions to program or participants. Which method is likely to be least intrusive?

• Advantages and disadvantages of each method.

• The need for credible and authentic evidence.

• The value of using multiple methods.

• The importance of ensuring cultural appropriateness.
Quality criteria for methods

UTILITY

Will the data sources and collection methods serve the information needs of your primary users?
Quality criteria...

FEASIBILITY
Are your sources and methods practical and efficient?
Do you have the capacity, time, and resources?
Are your methods non-intrusive and non-disruptive?
Quality criteria…

PROPRIETY
Are your methods respectful, legal, ethical, and appropriate?
Does your approach protect and respect the welfare of all those involved or affected?
Quality criteria…

ACCURACY
Are your methods technically adequate to:
• answer your questions?
• measure what you intend to measure?
• reveal credible and trustworthy information?
• convey important information?
There is no one right method of collecting data.

Each has a purpose, advantages, and challenges.

The goal is to obtain trustworthy, authentic, and credible evidence.

Often, a mix of methods is preferable.
Culturally appropriate evaluation methods

• How appropriate is the method given the culture of the respondent/the setting?
• Culture differences: nationality, ethnicity, religion, region, gender, age, abilities, class, economic status, language, sexual orientation, physical characteristics, organizational affiliation
Is a written questionnaire culturally appropriate?

Things to consider:

- Literacy level
- Tradition of reading, writing
- Setting
- Not best choice for people with oral tradition
- Translation (more than just literal translation)
- How cultural traits affect response – response sets
- How to sequence the questions
- Pretest questionnaire may be viewed as intrusive
Are interviews culturally appropriate?

Things to consider:

• Preferred by people with an oral culture
• Language level proficiency; verbal skill proficiency
• Politeness – responding to authority (thinking it’s unacceptable to say “no”), nodding, smiling, agreeing
• Need to have someone present
• Relationship/position of interviewer
• May be seen as interrogation
• Direct questioning may be seen as impolite, threatening, or confrontational
Are focus groups culturally appropriate?

Things to consider:

- Issues of gender, age, class, clan differences
- Issues of pride, privacy, self-sufficiency, and traditions
- Relationship to facilitator as prerequisite to rapport
- Same considerations as for interview
Is observation culturally appropriate?

Things to consider:
- Discomfort, threat of being observed
- Issue of being an “outsider”
- Observer effect
- Possibilities for misinterpretations
Cultural issues related to use of existing data/records

- Need careful translation of documents in another language
- May have been written/compiled using unknown standards or levels of aggregation
- May be difficult to get authorization to use
- Difficult to correct document errors if low literacy level
Culturally appropriate informed consent

How can we be culturally sensitive and respectful and ensure the protection of those involved in our evaluations?

– Children
– Marginalized, “less powerful” participants
Focus groups

Structured small group interviews

“Focused” in two ways:

– Persons being interviewed are similar in some way (e.g. limited resource families, family services professionals, or elected officials).

– Information on a particular topic is guided by a set of focused questions.
Focus groups

Focus groups are used...

• To solicit perceptions, views, and a range of opinions (not consensus)

• When you wish to probe an issue or theme in depth
Survey

A structured way to collect information using questionnaires. Surveys are typically conducted through the mail (electronic or surface), phone, or internet.
Survey

Surveys are used…

• To collect standardized information from large numbers of individuals
• When face-to-face meetings are inadvisable
• When privacy is important or independent opinions and responses are needed
Steps in planning a survey

1. Decide who should be involved in the process.
2. Define survey content.
3. Identify your respondents.
4. Decide on the survey method.
5. Develop the questionnaire.
6. Pilot test the questionnaire and other materials.
7. Think about analysis.
8. Communicate about your survey and its results.
9. Develop a budget, timeline, and management process.
Response rate

The proportion of people who respond: divide the number of returned surveys by the total number of surveys distributed.

Example: If you distribute 50 questionnaires and you get 25 questionnaires back, your response rate is 50%.
Response rate

\[
\frac{\text{# that answered}}{\text{# you contacted}} = \text{response rate}
\]
Response rate

• **High response rate** promotes confidence in results.

• **Lower response rate** increases the likelihood of biased results.
Response rate

• There is no standard response rate. “The higher, the better.” Anything under 60% is a warning.
• Why is high return important? It’s the only way to know if results are representative.
• Address low response. How are people who didn’t respond different from those who did? Only describe your results in terms of who did respond.
How to increase response rate

• Generate positive publicity for your survey.
• Over sample.
• Ensure that respondents see the value of participating.
• Use a combination of methods.
• Make (multiple) follow-up contacts.
• Provide incentives.
• Provide 1st class postage/return postage.
• Set return deadlines.
• Make the survey easy to complete.
If response rate is low...

Use language that is suggestive rather than decisive.

Examples: “The data suggests” vs. “These data show”; “It appears” vs. “We can conclude”

• Don’t generalize findings to the entire group.
• Clearly describe who the data represents.
Document review

Using information that already exists in records, receipts, meeting minutes, reports, budgets…rather than collecting new data

There is a wealth of information available on the web.

CHECK – What information is already available?
Document review – Sources

National Center for Education Statistics
http://nces.ed.gov

Census Bureau http://www.census.gov


National Center for Health Statistics
http://cdc.gov/nchs/

Children’s Defense Fund
http://www.childrensdefense.org

Wisconsin Department of Public Instruction

Local school districts

ERIC searches http://www.eric.ed.gov/

County government
Document review – Advantages of using existing data

• Available – don’t have to collect data
• Low cost
• Minimum staff required
• Comparative or longitudinal data may be available
Document review – Issues in using existing data

- Missing or incomplete data
- Confidentiality issues
- Unknown, different, or changing definitions of data make comparison difficult
- May not match what you need in terms of geographic location, same time period, or population – may be too aggregated
Observation...

- Is watching people, programs, events, communities, etc.
- Involves all 5 senses: sight, hearing, smell, touch, and taste
  - observation includes more than just “seeing”
Observation is used...

- To provide information about real-life situations and circumstances
- To assess what is happening
- Because you cannot rely on participants’ willingness and ability to furnish information
When is observation useful?

- When you want direct information
- When you are trying to understand an ongoing behavior, process, unfolding situation, or event
- When there is physical evidence, products, or outcomes that can be readily seen
- When written or other data collection methods seem inappropriate
Observations

• Advantages
  – Most direct measure of behavior
  – Provides direct information
  – Easy to complete, saves time
  – Can be used in natural or experimental settings

• Disadvantages
  – May require training
  – Observer’s presence may create artificial situation
  – Potential for bias
  – Potential to overlook meaningful aspects
  – Potential for misinterpretation
  – Difficult to analyze
Observation – Purpose, benefits

- Unobtrusive
- Can see things in their natural context
- Can see things that may escape conscious awareness, things that are not seen by others
- Can discover things no else has ever really paid attention to, things that are taken for granted
- Can learn about things people may be unwilling to talk about
- Inconspicuous – least potential for generating observer effects
- Least intrusive of all methods
- Can be totally creative – has flexibility to yield insight into new realities or new ways of looking at old realities
Observation – Limitations

1. Potential for bias
   • Effect of culture on what you observe and interpret

2. Reliability
   • Ease of categorization

Usually you do not rely on observation alone; combine your observations with another method to provide a more thorough account of your program.
Observation – Ethical issues

• Unobtrusiveness is its greatest strength; also potential for abuse in invasion of privacy
• Can venture into places and gather data almost anywhere
• Covert – overt
  – Always consider ethics and human subjects protection.
Types of observation

Structured  Unstructured
Looking for  Looking at

Observing what does not happen may be as important as observing what does happen.
Steps in planning for observation

• Determine who/what will be observed.
• Determine aspects that will be observed (characteristics, attributes, behaviors, etc.).
• Determine where and when observations will be made.
• Develop the observation record sheet.
• Pilot test the observation record sheet.
• Train the observers and have them practice.
• Collect the information.
• Analyze and interpret the collected information.
• Write up and use your findings.
Who/what to observe

- People (individuals, groups, communities)
  - Characteristics
  - Interactions
  - Behaviors
  - Reactions
- Physical settings
- Environmental features
- Products/physical artifacts
### Observation – Example

<table>
<thead>
<tr>
<th>If you want information about…</th>
<th>You would record…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who uses a particular service</td>
<td>Total number of users broken down by gender, age, ethnicity, etc.</td>
</tr>
<tr>
<td>Interactions between youth and adults</td>
<td># and types of questions asked by each</td>
</tr>
<tr>
<td>Neighborhood safety</td>
<td>???</td>
</tr>
</tbody>
</table>
What to observe – Example

Exhibit on tobacco use at a county fair

Information needed:
Number of youth who visit the exhibit: age, gender, cultural background

Can the information be observed accurately?
E.g., gender may be more obvious than age or cultural background.

Will the observer affect the situation?
Example – Plans for observing participation in an after school program

- Who: youth attending the program
- What:
  - approximate age
  - gender, cultural background
  - length of time student stays in the program
- When: all hours the program is open for one week each month during 2007
Recording your observations

Observations need to be recorded to be credible. You might use:

– Observation guide
– Recording sheet
– Checklist
– Field note
– Picture
– Combination of the above
Observational rating scales

• Written descriptions – written explanations of each gradation to observe
• Photographs – series of photos that demonstrate each of the grades on the rating scale
• Drawings, sketches, etc. – other visual representations of conditions to be observed
Who are the observers?

• You – program staff
• Participants
• Stakeholders
• Colleagues
• Volunteers
• College students
Training observers

Training is often necessary:

- To learn what to look for
- To learn how to record observations
- To practice
- When want standardized observations across sites: important that all observers use same methods, rate same observation in same way
Practice

For our workshop today, what observational data could we collect that would tell us …

– whether learning is occurring
– the characteristics of attendees
– whether the setting is conducive to learning
– whether the materials are easy to use
Imagine you are sitting in a room where ten youth are participating in a computer demonstration. If you were looking for indicators of student interest and learning from the demonstration, what would you look for?

(Remember to include verbal and nonverbal indicators.)
Interviewing is…

• Talking and listening to people
• Verbally asking program participants the program evaluation questions and hearing the participant’s point of view in his or her own words. Interviews can be either structured or unstructured, in person or over the telephone.
• Done face-to-face or over the phone
• Individual; group
Interviews are useful…

• When the subject is sensitive
• When people are likely to be inhibited in speaking about the topic in front of others
• When people have a low reading ability
• When bringing a group of people together is difficult (e.g., in rural areas)
Interviews

Verbally asking program participants the program evaluation questions and hearing the participant’s point of view in his or her own words.

Interviews can be either structured or unstructured, in person or over the telephone.
Interviews

- **Advantages**
  - deep and free response
  - flexible, adaptable
  - glimpse into respondent’s tone, gestures
  - ability to probe, follow-up

- **Disadvantages**
  - costly in time and personnel
  - requires skill
  - may be difficult to summarize responses
  - possible biases: interviewer, respondent, situation
Types of interviewing

Structured  \rightarrow  Conversational
Type: Structured interview

- Uses script and questionnaire
- No flexibility in wording or order of questions
- Closed response option
- Open response option
Type: Guided interview

- Outline of topics or issues to cover
- May vary wording or order of questions
- Fairly conversational and informal
Type: Conversational interview

- May not know that an interview is taking place
- Spontaneous
- Questions emerge from the situation and what is said
- Topics or questions are not predetermined
- Individualized and relevant to situation
Probing

Interview question:
“What did you like best about this program?”
Response: “I liked everything.”
Probe 1: “What one thing stood out?”
R: “Being with my friends.”
Probe 2: “What about the program activities?”
R: “I liked it when we worked as a team.”
Probe 3: “How come?”
R: “It was neat to hear each other’s perspectives. I heard some things I hadn’t considered before.”
Probe 4: “What is one thing that you learned?”
Interviewing tips

• Keep language pitched to that of respondent
• Avoid long questions
• Create comfort
• Establish time frame for interview
• Avoid leading questions
• Sequence topics
• Be respectful
• Listen carefully
Recording responses

- Write down response
- Tape record
- Key in on computer
- Work in pairs
- Complete notes after interview
Questionnaires are...

- Data collection instruments used to collect standardized information that can be expressed numerically or through short answers
- Basic instruments of surveys and structured interviews
- Appropriate when...
  - you want information from many people
  - you have some understanding of the situation and can ask meaningful questions
  - information is sensitive or private − anonymous questionnaires may reduce bias
Questionnaires

• Advantages
  – can reach large numbers
  – provide for anonymity
  – relatively inexpensive
  – easy to analyze

• Disadvantages
  – might not get careful feedback
  – wording can bias client’s response
  – response rate is often low
  – literacy demands
When should a questionnaire be used?

• Respondents can provide useful information about the topic.
• You know what it is you want to know and are reasonably sure that you can ask standardized questions to get the information.
• Respondents can be relied upon to provide the information you need (perhaps with incentives). This means they can comprehend the questions and respond properly, they are truthful, and they are motivated enough to respond carefully.
Good questionnaires are NOT EASY!

• Developing a good questionnaire, takes time, time, and more time.
• Multiple (even a dozen!) drafts may be involved before the questionnaire is ready.
• It’s important to involve others in writing the questionnaire.
Questionnaire design – Considerations

- Kind of information: What do you want to know? Is the information already available?
- Wording of questions and responses
- Formatting the questionnaire
- Pre-testing
- Cover letters and introductions
- When/where will the questionnaire be distributed?
- How will returns be managed? How will the data be analyzed?
- Who is responsible for each task?
Questionnaire design

- Is the information already available?
- Don’t ask a question unless it has a use.
  - Eliminate the “nice to know.”
- What will you do with each piece of information gathered?
Questionnaire design

• Write questions through your respondent’s eyes.
  – Will the question be seen as reasonable?
  – Will it infringe on the respondent’s privacy?
  – Will the respondent be able and willing to answer the question?

• Be **selective** and **realistic** when writing questions.
6 STEPS IN DEVELOPING EFFECTIVE QUESTIONNAIRES

1. Decide what information you need.
2. Determine sample – respondents.
3. Develop accurate, user-friendly questionnaire.
4. Develop plan for distribution, return, and follow-up.
5. Provide clear instructions and a good cover letter.
Step 1: What information is needed?

- Be specific
- Need to know vs. would like to know
- Check to see if information exists elsewhere
- What do you want to be able to say: counts, percentages, relationships, narratives
Step 2: Sample

- Who will complete the questionnaire?
- What do you know about their preferences, abilities, and cultural characteristics that may affect the way they respond?
Step 3: Develop questionnaire

• Make sure questions cover information needed.
• Word questions carefully.
• Consider cultural nuances.
• Sequence questions appropriately.
• Attend to formatting.
Step 3 continued

• Write clear, complete directions.
• Review to see if it is user-friendly; consider the respondent.
• Make the questionnaire attractive.
• Work as a team.
• Plan on writing several draft questionnaires.
Step 4: Plan distribution, return, follow-up

Distribution: when, where
  – At meetings, sites, through mail, email, internet

Return: when, where
  – Return to individual, collection box
  – Return envelope addressed/stamped
  – Return envelope addressed only

Follow-up
Step 5: Cover Letter – Explanation

- Purpose of questionnaire – how information will be used
- Why they are being asked to fill it out
- Importance of their response
- How and when to respond
- Whether response will be anonymous or confidential
- Your appreciation
- Promise results, if appropriate
- Signature – sponsorship
Step 6: Pilot test

- Always
- With people as similar to respondents as possible
  - Do they understand the questions? The instructions?
  - Do questions mean same thing to all?
  - Do questions elicit the information you want?
  - How long does it take?
- Revise as necessary
Kinds of information – What do you want to know?

- Knowledge – what people know, how well they understand something
- Beliefs – attitudes, opinions
- Behaviors – what people do
- Attributes/Demographics – what people are and what people have
## Change in knowledge

### Impact of divorce on children

As a result of this program, to what extent do you understand the following about children and divorce:

<table>
<thead>
<tr>
<th></th>
<th>Not well</th>
<th>Somewhat</th>
<th>Very well</th>
<th>Already knew</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Stages of grief</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Self-blame or guilt</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. The desire for parents to reunite</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Change in skills

Communication skills
List three communications techniques you learned in this course that you have used with your children:

1. ________________________________
2. ________________________________
3. ________________________________
Change in attitude

As a result of this course, to what extent do you feel that your attitude has changed about:

a. Discussing your children with your ex
   not at all  somewhat  a great deal

b. Allowing your former in-laws to see your children
   not at all  somewhat  a great deal
Change in behavior

How visitation disputes are handled

1. Describe how you and your ex-spouse handled visitation disagreements \textit{before} the course.

2. Describe how you and your ex-spouse have handled visitation disagreements \textit{since} the workshop.
Attributes –
What people are, what people have

Demographic characteristics – age, education, occupation, or income
  – Where do you currently live?
  – How many children do you have?
  – What is your age?
  – How many years have you been employed at your current job?
Types of questions

• Open-ended questions – allow respondents to provide their own answers

• Closed-ended questions – list answers and respondents select either one or multiple responses
Open-ended questions

• Do not provide any specific responses from which the participant would choose.

• Allow respondents to express their own ideas and opinions.
Open-ended questions

Pros:
- Can get unintended or unanticipated results
- Wide variety of answers
- Answers in participants’ “voices”

Cons:
- More difficult to answer
- May be harder to categorize for interpretation
- More difficult for people who don’t write much
Open-ended questions

Examples:

What communication skills did you learn in this workshop that you will use with your children?

What benefits do you receive from this organization?
Closed-ended questions

- Provide specific answers from which the participant must choose.
- Sometimes called “forced choice.”
- Response possibilities include: one best answer, multiple responses, rating, or ranking scale.
Closed-ended questions

Pros:
• Easy to analyze responses
• Stimulates recall

Cons:
• Chance of none of the choices being appropriate
• Biases response to what you’re looking for
• Misses unintended outcomes
Closed-ended questions

Example – one best answer:

What does the word “nutrition” mean to you?
(Circle one number.)

1 Getting enough vitamins
2 The food you eat and how your body uses it
3 Having to eat foods I don’t like
4 Having good health
Closed-ended questions

**Example – multiple responses:**

Of the communication skills taught in this workshop, which will you use with your children? (Check all that apply.)

___ active listening
___ acknowledge feelings
___ ask more open-ended questions
___ provide one-on-one time for discussion
___ negotiation
___ other ______________________
Closed-ended questions

Example – rating scale

To what extent do you agree or disagree with the new zoning code? (Circle one.)

1 Strongly disagree
2 Mildly disagree
3 Neither agree or disagree
4 Mildly agree
5 Strongly agree
When wording the questions, consider...

- The particular people for whom the questionnaire is being designed
- The particular purpose of the questionnaire
- How questions will be placed in relation to each other in the questionnaire
Use clear, specific, simple wording.

• Match vocabulary and reading skills of your respondents.
• Are any words confusing? Do any words have a double meaning?
• Avoid the use of abbreviations and jargon.
Example: Use clear, specific, simple wording.

• Avoid jargon or technical language.

**Jargon:**
What kind of post-litigation concerns have you and your ex-spouse had?

**Better:**
Since having your visitation rights set by a judge, what other concerns have you and your ex-spouse had about visitation?
Include all necessary information.

- Avoid vague questions and answers.
- Avoid ambiguous words or phrases.
- Avoid questions that may be too specific.
- Avoid making assumptions.
Example: Vague questions

Vague:

How will this seminar help you?
Example: Vague questions

Better:

What skills did you learn in this seminar that will help you follow the child custody arrangements set by the court?

_____ how to negotiate changes or with my ex-spouse
_____ how to explain visitation arrangements to my children
_____ steps to requesting a change in arrangements from the court
_____ how to separate child support from visitation disputes
Example: Avoid ambiguous words or phrases.

Ambiguous:

How has your child demonstrated improved communication skills since participating in “Let’s Communicate”? 
Example: Avoid specificity that limits the potential for reliable responses.

Too specific:
How many meals have you eaten as a family during the past year?

___________ number of meals
Example: Avoid making assumptions.

Question for teachers that makes assumptions:

What practices have you used to get more parents to read to their children?
Avoid leading questions.

- Biased questions
  - Influence people to respond in a certain way
  - Make assumptions about the respondent
  - Use language that has strong positive or negative appeal
Example: Leading questions

Leading:
Do you think this seminar will help you stop fighting with your spouse about the children?

Better:
How do you think this seminar will help you work with your spouse to address your children’s concerns?
Avoid double-barreled questions.

• Ask one question at a time.
• Avoid ambiguity – questions that have multiple responses.
Example: Double-barreled question

Double:
How will this seminar help you communicate better with your children and their grandparents about your divorce?

Better:
How will this seminar help you communicate with your children about your divorce?
How will this seminar help you communicate with your children’s grandparents about their relationship with their grandchildren?
Make the response categories clear, logical, and mutually exclusive.

- Only one possible answer
- Similar-sized categories
- Responses in a logical order
Example: Clear, logical, and mutually exclusive responses

<table>
<thead>
<tr>
<th>Poor spacing and logic:</th>
<th>Better spacing, logic, and mutually exclusive:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children’s Ages</strong></td>
<td><strong>Children’s Ages</strong></td>
</tr>
<tr>
<td>0–1</td>
<td>under 1 year of age</td>
</tr>
<tr>
<td>1–3</td>
<td>1–3 years of age</td>
</tr>
<tr>
<td>3–6</td>
<td>4–6 years of age</td>
</tr>
<tr>
<td>7–12</td>
<td>7–9 years of age</td>
</tr>
<tr>
<td>13–18</td>
<td>10–12 years of age</td>
</tr>
<tr>
<td></td>
<td>13–15 years of age</td>
</tr>
<tr>
<td></td>
<td>16–18 years of age</td>
</tr>
</tbody>
</table>
Example: Vague quantifier

Vague:

How often did you attend an Extension-sponsored workshop during the past year?

a. Never
b. Rarely
c. Several times
d. Many times
Example: Vague quantifier

Better:

How often did you attend an Extension-sponsored workshop during the past year?

a. Not at all
b. One to two times
c. Three to five times
d. More than five times
Rating scales

• Ordered options to gauge difference of opinion.
• Keep the order of choices the same throughout the form.
• Odd number of options allows people to select a middle option.
• Even number forces respondents to take sides.
• Simpler is better.
Types of rating scales

Category scales
Numeric scales
Semantic differentials
Category/Rating scales

- Use words or phrases to express a range of choices.
- The number of categories depends on the amount of differentiation.
- Three, four, or five categories are most common.
Category/Rating scales

• Balance the scale with an equal number of positive and negative options.
• “No opinion” or “uncertain” are not part of a scale. They are usually placed off to the side or in a separate column.
• All choices should refer to the same thing/concept.
**Category/Rating scales – Example**

<table>
<thead>
<tr>
<th>Poor:</th>
<th>Better:</th>
</tr>
</thead>
<tbody>
<tr>
<td>___Not worth my time</td>
<td>___Not at all interested</td>
</tr>
<tr>
<td>___Slightly interested</td>
<td>___Slightly interested</td>
</tr>
<tr>
<td>___Moderately interested</td>
<td>___Moderately interested</td>
</tr>
<tr>
<td>___Very interested</td>
<td>___Very interested</td>
</tr>
</tbody>
</table>

Left column includes two concepts – “worth” and “interest level.”
## Rating scales – Words

<table>
<thead>
<tr>
<th>Not much</th>
<th>A little</th>
<th>Not much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some</td>
<td>Some</td>
<td>Little</td>
</tr>
<tr>
<td>A great deal</td>
<td>A lot</td>
<td>Somewhat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Much</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A great deal</td>
</tr>
</tbody>
</table>
Rating scales – Words

Never
Seldom
Often
Always

Extremely poor
Below average
Average
Above average
Excellent
## Rating scales – Words

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Completely disagree</th>
<th>Mostly disagree</th>
<th>Mostly agree</th>
<th>Completely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slightly disagree</td>
<td></td>
<td>Slightly agree</td>
<td></td>
</tr>
<tr>
<td>Mostly disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither agree nor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Formatting considerations

• Overall appearance
• Length of the questionnaire
• Order of questions
• Demographic data collection
Formatting – Overall appearance

- Use an easy-to-read typeface.
- Leave plenty of white space.
- Separate different components of a questionnaire by using different type styles.
- Use arrows to show respondents where to go.
Formatting – Length of the questionnaire

- Shorter questionnaires usually generate higher return.
- Include enough items to be thorough but don’t over-burden the respondent.
- Length is not usually as important as other formatting characteristics.
Formatting – Order of questions

• Introduction – Include questionnaire’s sponsor, purpose, use, confidentiality, etc.
• Include instructions for how to answer the questions (e.g., Circle one; Check all that apply).
• Arrange questions so they flow naturally.
• Place demographic questions at the end of the questionnaire.
• Be consistent with numbers, format, and scales.
Formatting – Order of questions

- Start with the easiest questions – avoid controversial topics.
- Address important topics early.
- Move from specific questions to general questions.
- Move from closed-ended to open-ended questions.
Formatting – Demographic data collection

• Only include questions about demographic data that you will use.
• You may want to preface demographic questions with the purpose for collecting the information.
• You may need to state that providing this information is optional and/or explain how it affects program eligibility.
Building Capacity in Evaluating Outcomes

Unit 5: Collecting data

Formatting – Demographic data collection

- Age
- Gender
- Ethnicity
- Marital status
- Family size
- Occupation
- Education
- Employment status

- Residence
- Previous contact with organization
- Prior knowledge of topic
- First-time participant vs. repeats
- How you learned about the program
Pre-test the questionnaire

ALWAYS

ALWAYS

ALWAYS

ALWAYS
What you want to find out in a pretest:

- Does each question measure what it is supposed to measure?
- Are all the words understood?
- Are questions interpreted in the same way by all respondents?
- Are all response options appropriate?
- Is there an answer that applies to each respondent?

- Salant and Dillman (1994)

Pre-testing questions

• Are the answers respondents can choose from correct? Are some responses missing?
• Does the questionnaire create a positive impression – does it motivate people to answer it?
• Does any aspect of the questionnaire suggest bias?
• Do respondents follow the directions?
• Is the cover letter clear?

-Salant and Dillman (1994)

Pre-testing steps

1. Select reviewers who are similar to the respondents and who will be critical. (Also ask your colleagues to review it.)

2. Ask them to complete the questionnaire as if it were “for real.”

3. Obtain feedback on the form and content of the questionnaire and the cover letter. Was anything confusing, difficult to answer, de-motivating?
Pre-testing steps, continued

4. Assess whether the questions produce the information you need.
5. Try the tabulation and analysis procedures.
6. Revise.
7. If necessary, repeat these steps to pre-test the revised version.
Revise and revise…

• A quality questionnaire is almost never written in one sitting.

• A quality questionnaire goes through multiple revisions (maybe a dozen!) before it is ready.

• Remember – a list of questions is just the starting point. There are many factors that affect response.
Choices: **Timing of data collection**

When will data be collected?

- Before and after the program
- At one time
- At various times during the course of the program
- Continuously through the program
- Over time – longitudinally
A good cover letter will include information about…

- Purpose and importance of the survey
- Survey sponsor – use letterhead
- Why the respondent was selected to participate
- Benefit(s) of completing survey
- Assurance of anonymity or confidentiality
A good cover letter will include information about…

- How results will be used
- Instruction for returning the survey
- When to respond
- How to obtain survey results
- Contact information
Cover letters – Tips

- Personalize the letter in salutation or signature
- Hand-sign the letter
- Express appreciation for their participation
- Include pre-addressed, stamped return envelope
Cover letters – Pre-test

• Remember to pre-test your cover letter just as you pre-test your questionnaire!
Sampling – The basics

• Why sample?
• What are options for sampling design?
• What determines sample size?
• What should you consider when conducting the sample?
Why a sample?

- Save money.
- Save time.
- Minimize error and maximize representation.
Types of sampling strategies:

Probability:

- Why?
  Generalize to population.

Some examples:
- Simple random sample
- Stratified sample
- Cluster sample
- Systematic sample

Nonprobability:

- Why?
  Generalizability not as important. Want to focus on “right cases.”

Some examples:
- Quota sample
- “Purposeful” sample
- “Convenience” or “opportunity” sample
Things to remember

- The smaller the sample size, the greater the variability.
- Goal of sampling: to reduce variability enough to say it represents the population without increasing costs.
- Sampling bias: Sampling is not “really” random, but ion a good sample:
  1. Each unit should have an equal chance of being chosen.
  2. Choosing one unit should not affect whether another is chosen.
- Response bias: Respondents with particular characteristics tend to respond in particular ways.