

HSCC 470
Research Methods and Data
Analysis in Health Sciences

Questionnaire Construction

HSCC 470 Questionnaire Construction 1

Unit Objectives

Upon completion of this unit, the student will be able to:

- Discuss the content of factual and subjective-based questions.
- List and describe the following types of questions:
 - Closed-ended
 - Open-ended
 - Contingency
- List and describe the 4 factors used to determine which type of question is appropriate.
- Describe the different formats that questions may take.
- Discuss the use of funneled and inverted funnel sequence of asking questions.
- Discuss techniques employed to limit bias in designing questions.

HSCC 470 Questionnaire Construction 2

Content of Questions

- **Factual**
 - Easier to design than other types
 - Reasons for inaccurate responses
 - Respondents do not know the information
 - Respondents cannot recall the information
 - Respondents do not understand the question
 - Respondents are reluctant to answer

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Content of Questions continued

- **Subjective-based Questions**

- Concerned with beliefs, attitudes, feelings, and opinions
- Attitudes can be described by content, direction, and intensity, and are measured on a scale
- Opinions are usually measured by the proportion of a sample that agrees with a statement
- Attitudes and opinions are more difficult to measure
- Answers to attitude and opinion questions are more sensitive to wording, emphasis, and sequence of questions

Types of Questions

- **Closed-ended**

- To what extent do you agree with the following statement:

“Paramedics would be a valuable addition to the staff of an emergency department.”

1. strongly agree
2. agree
3. disagree
4. strongly disagree

Types of Questions continued

- **Open-ended**

- No answers from which to select a response
- Allows respondent to answer in his own words or ask for clarification
- Interviewer has opportunity to probe
- Difficult to answer and even more difficult to analyze

Determining Which Type of Question is Appropriate

- Objectives of questionnaire
- Respondent's level of information about topic
- Extent to which topic has been thought through by respondent
- Openness of respondent

Contingency Questions

1. At what level do you function with your current EMS employer?

- a. EMT-P go to question 2
- b. EMT-I skip to question 3
- c. EMT skip to question 3

2. How satisfied are you with your current 12-lead monitor?

- a. very satisfied
- b. somewhat satisfied
- c. Somewhat dissatisfied
- d. Very dissatisfied

Question Format

- **Rating**
Strongly agree, agree, disagree, strongly disagree
- **Semantic differential**
Professional -5 -4 -3 -2 -1 0 1 2 3 4 5 unprofessional
- **Likert Scale**
Strongly agree 5 4 3 2 1 Strongly disagree
- **Ranking**
Rank the importance of the following job characteristics
least important most important
Location 1 2 3 4
Salary
Benefits
Advancement opportunities

Sequence of Questions

- **Funnel**
 - Each question related to previous question
 - Scope narrows
- **Inverted Funnel**
 - Saves broader, more difficult questions for last
 - Gets respondent to consider the facts before making generalizations

Avoiding Bias

- **Wording**
- **Response set**
- **Leading questions**
- **Threatening questions**
- **Double-barreled questions**
