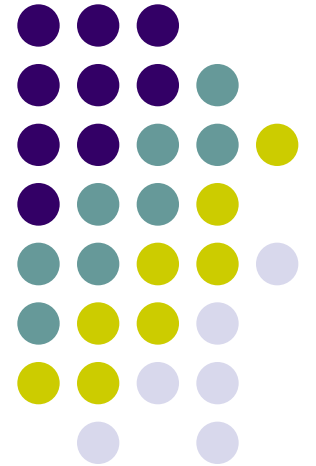


# Using Questionnaires

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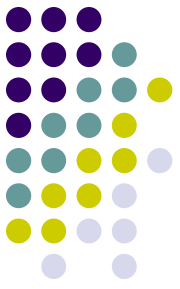
# Major Topics

- Question types
- Scales
- Validity and reliability
- Formatting the questionnaire
- Administering the questionnaire
- Web questionnaires



# Questionnaires

- Questionnaires are useful in gathering information from key organization members about
  - Attitudes
  - Beliefs
  - Behaviors
  - Characteristics



# When to Use Questionnaires

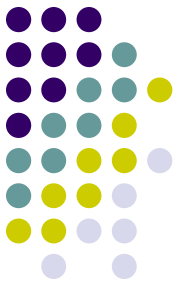
- Questionnaires are valuable if
  - Organization members are widely dispersed
  - Many members are involved with the project
  - Exploratory work is needed
  - Problem solving prior to interviews is necessary



# Question Types

- Questions are designed as either
  - Open-ended
    - Try to anticipate the response you will get
    - Well suited for getting opinions
    - Useful in explanatory situations
  - Closed
    - Use when all the options may be listed
    - When the options are mutually exclusive

# Open-Ended and Closed Questions



Open-ended

Slow

High

High

Easy

Difficult

Speed of completion

Exploratory nature

Breadth and depth

Ease of preparation

Ease of analysis

Closed

Fast

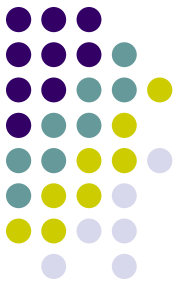
Low

Low

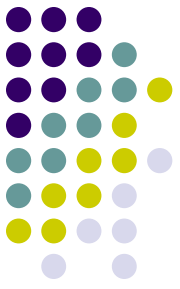
Difficult

Easy

# Questionnaire Language



- Questionnaire language should be
  - Simple
  - Specific
  - Free of bias
  - Not patronizing
  - Technically accurate
  - Addressed to those who are knowledgeable
  - Appropriate for the reading level of the respondent



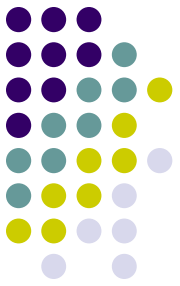
# Scaling

- Is the process of assigning numbers or other symbols to an attribute or characteristics for the purpose of measuring that attribute or characteristics
- Reason for scaling
  - Measure the attitudes or characteristics of respondents
  - Have respondents act as judges for the subject of the questionnaire



# Measurement Scales

- There are four different forms of measurement scales:
  - Nominal
  - Ordinal
  - Interval
  - Ratio



# Nominal Scales

- Nominal scales are used to classify things into categories
- It is the weakest form of measurement
- Data may be totaled

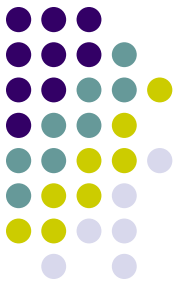
What type of software do you use the most?

1 = Word Processor

2 = Spreadsheet

3 = Database

4 = An Email Program

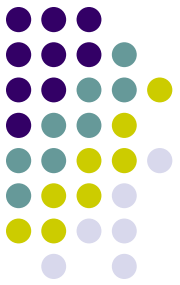


# Ordinal Scales

- Allow classification
- Ordinal scales also imply rank ordering
- There is no difference between the importance of the choices

The support staff of the Technical Support Group is:

1. Extremely Helpful
2. Very Helpful
3. Moderately Helpful
4. Not Very Helpful
5. Not Helpful At All



# Interval Scales

- An interval scale is used when the intervals are equal
- There is no absolute zero
- Examples of interval scales include the Fahrenheit or centigrade scale

How useful is the support given by the Technical Support Group?				
NOT USEFUL			EXTREMELY USEFUL	
AT ALL				
1	2	3	4	5





# Ratio Scales

- The intervals between numbers are equal
- Ratio scales have an absolute zero

Approximately how many hours do you spend on the Internet daily?

0

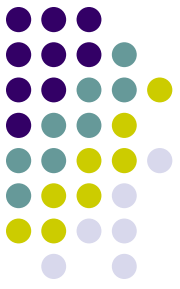
2

4

6

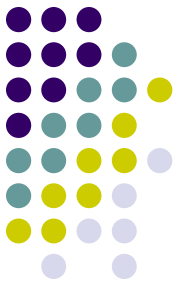
8

# Guidelines for Using Scales

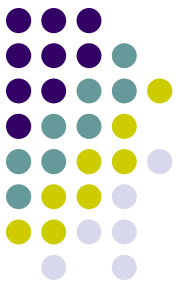


- Use a ratio scale when intervals are equal and there is an absolute zero
- Use an interval scale when intervals are equal but there is no absolute zero
- Use an ordinal scale when the intervals are not equal but classes can be ranked
- Use a nominal scale when classifying but not ranking

# Validity and Reliability

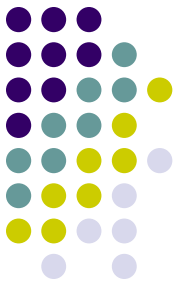


- Questionnaires must be valid and reliable
  - Reliability of scales refers to consistency in response
  - Getting the same results if the same questionnaire was administered again under the same conditions
  - Validity is the degree to which the question measures what the analyst intends to measure



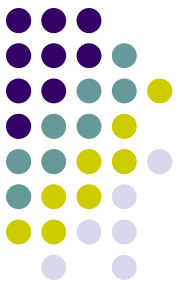
# Problems With Scales

- There are three problems associated with poorly constructed scales:
  - Leniency (always high ranking)
  - Central tendency (average answers)
  - Halo effect  
(is the problem arises when the impression formed in one question carries into the next question)



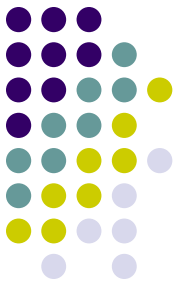
# Leniency

- Caused by easy raters
- A solution is to move the “average” category to the left or right of center



# Central Tendency

- Central tendency occurs when respondents rate everything as average
- Improve by making the differences smaller at the two ends
- Adjusting the strength of the descriptors
- Creating a scale with more points



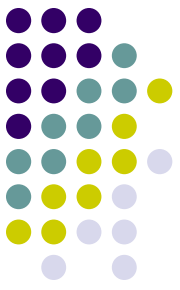
# Halo Effect

- When the impression formed in one question carries into the next question
- Solution is to place one trait and several items on each page



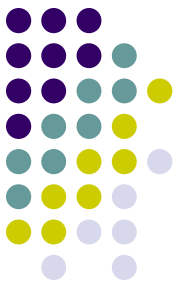
# Formatting the Questionnaire

- Good response rates can be achieved with consistent control of questionnaire
  - Format
  - Style
  - Meaningful ordering
  - Clustering of questions



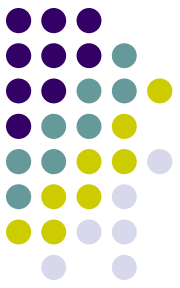
# Questionnaire Format

- When designing questionnaires
  - Allow ample white space
  - Allow enough space for responses to be typed for open-ended questions
  - Ask respondents to clearly mark their answers
  - Use objectives to help determine format
  - Be consistent in style



# Order of Questions

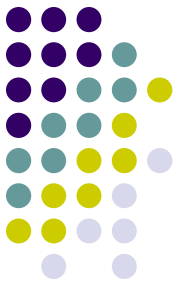
- Most important questions go first
- Similar topics should be clustered together
- Randomization of questions tries the patience of respondents
- Controversial questions should be positioned after less controversial questions



# Web Form Questionnaires

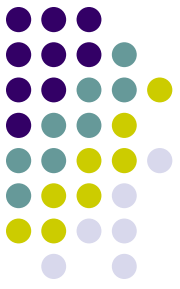
- Controls (fields) used on Web forms
  - Single line text box
  - Scrolling text box, used for one or more paragraphs of text
  - Check box for yes-no or true-false answers
  - Radio button for mutually exclusive yes-no or true-false answers
  - Drop-down menu for selection from a list
  - Submit or Clear buttons

# Methods of Administering the Questionnaire



- Methods of administering the questionnaire include
  - Convening All concerned respondents together at one time
  - Personally administering the questionnaire
  - Allowing respondents to self-administer the questionnaire
  - Mailing questionnaires
  - Administering over the Web or via email

# Electronically Submitting Questionnaires



- Administering a questionnaire electronically has many benefits
  - Reduced costs
  - Collecting and storing the results electronically