

Gathering Information

ANALYSING THE DATA



Analyzing the Data

ELEMENT #7 REPORTING RESULTS (#7 out of the 7 Elements of a Survey)

(This lecture picks up where we left off in week 5 when we talked about creating a survey: Step 7 out of the 7 Elements of a Survey)

FIRST: INTERPRET THE SURVEY DATA

Printout: "Sample Survey (completed)"
Printout: "Interpret Sample Survey"
You will begin to interpret your data by first tallying the numbers from your returned completed surveys and documenting the tallied numbers on to a copy of your original blank survey. Use the Sample Survey (completed) as an example.

Next, you will use your newly "tallied" survey to find the Rate of Response and Factor the Equations so that you have quantitative data to use to create charts, graphs and tables. See "Interpret Sample Survey" as an example.

SECOND: ANALYZE THE DATA:

Printout: The "Sample Survey Analysis"
Use the tallied numbers of your own survey to write a Survey Analysis report.

THEN: PICK THE BEST WAY TO PRESENT THE RESULTS: Printout from Week 6:

Charts vs Graphs: How to present the data. When presenting your findings, it's important to illustrate the data with graphics. Graphics serve to:

- Clarify the data
- Condense and simplify the data
- Emphasize the data

The question becomes, then, which graphic do you use? Once you've selected the data you want to illustrate, you have to decide which graphic will best highlight the point you want to make. Should you use a table, a bar chart, a pie chart, a line graph or a picture?

TABLES

Probably the most frequently used graphic in reports is the table because a table presents quantitative or verbal information in systematic column and rows that allows you to make comparisons quickly. Tables permit systematic presentation of large amounts of data, while charts enhance visual comparisons. Use tables when you want to show exact figures and values.

Tips:

- Provide clear headings for the rows and columns
- Identify the units of measurement: dollars, units, percentages, etc.
- Arrange items in a logical order
- Use N/A (not available) for missing data

PIE CHARTS

Pie charts help to visualize a whole unit and the proportions of its components. Use a pie chart when you want to show percentages.

Tips:

- Begin at the 12 o'clock position, drawing the largest wedge first. (Note: Computer software programs don't always observe this advice, but if you're drawing your own charts you can.)
- Do not use more than 8 segments.
- Group small portions into one wedge and label it "Other" when necessary.
- Include the percentage number for each wedge.
- Keep all the labels horizontal
- Distinguish wedges with color or shading

BAR CHARTS

Bar charts provide an overview of several kinds of information at one glance. Bar charts can be used to compare related items, illustrate changes in data over time, and help us understand how parts relate to a whole. Use a bar chart when you want to compare one item with others.

Tips:

- Keep the length of each bar segment proportional.
- Include a total figure in the bar segment if it helps the reader and does not clutter the chart.
- Start dollar or percentage amounts at zero.
- Avoid showing too much information, thus producing clutter & confusion

LINE GRAPHS

The major advantage of line graphs is that they show changes over time, thus indicating trends. Note that line charts do not provide precise date, instead they give an overview or impression of the data. Use a line graph to demonstrate changes in quantitative data over time.

Tips:

- Begin with a grid divided into squares
- Arrange the time component (usually years) horizontally across the bottom; arrange values for the other variable vertically.
- Draw small dots at the intersections to indicate each value at a given year.
- Connect the dots and add color if desired.

PHOTOGRAPHS

Use a photograph when you want to show readers what an item actually looks like.