Chapter 4
Graphing Data

Classroom Management
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Three Phases of Behavior Modification

- Baseline Phase
- Treatment Phase
- Follow-up Phase
• Observe individual performance
• Graphically display trends
  ◦ Accelerating Trends
  ◦ Decelerating trends
  ◦ Stable Trends
  ◦ Variable Trends
To Summarize Our Data

- We will graph the dimension of behavior we measured (quantitative data)
- We will develop a hypothesis from the ABC assessments we used (qualitative data)
• Particular Behavior-dependent variable
• Treatment Program-independent variable
Displaying Observational Data

- Line Graphs – horizontal and vertical lines
- Bar Graphs – Histogram
- Cumulative Graphs – when data needs to be accumulated over a period of time (sight words)
Basic Elements of a Simple Line Graph: Terminology

- **Axes**: boundaries of the graph
  - x axis – passage of time
  - Y axis – frequency, rate duration
- **x axis** (abscissa) shows how many times the data were collected (dates, sessions)
- **y axis** (ordinate): shows the target behavior
  - Always begin at 0
- **Data point**: small geometric form (e.g., dot) to represent the occurrence of the behavior
- **Data path**: solid line drawn to connect the data points
Example of a Linear Chart

![Linear Chart Example](image-url)
Scale of Measurement

- **Frequency Count**
  - Number of...
    - E.g., hits, call outs

- **Time Sampling**
  - Number of minutes, seconds
    - Eg. Minutes out of seat

- **Interval Recording**
  - Number or % interval
Do not connect data points from end of baseline to 1st intervention

%age graphs, ordinate should go up to 100

Allow room for the behavior to increase on the ordinate. E.g., baseline indicates student talks out avg. 12 times in 30 minute period. Number to 20 or 25.

Should establish trend before ceasing to collect baseline

Graphing
Computer-Generated Graph
E.g., Microsoft Excel

1. Enter data in excel file
   - 2 columns
2. Select data with mouse
3. Go to Insert pull down menu
4. Select “Chart”
5. Select “Line”
6. Select the type of line graph, then click next
7. Label the x and y axes
8. Click “finish” and print it!
• Axes are labeled
• Appropriate increments (1, 2, 3. .) or (10, 20, 30. .)
• Hash marks are inside the graph
• Data is plotted correctly
• Break in data path at intervention phase line
• Phase line between intervention phases
• Phases are labeled
• Used descriptive labels for phases

Criteria for Evaluating Your Graphs