



Post Analysis Considerations
or
Now What?



Verification and Data Cleaning

- ◆ Double check data
- ◆ Check accuracy of computations
- ◆ Check reasonableness of results
- ◆ Computer analysis is generally correct BUT only when data is entered correctly



Storage

- ◆ Organize, file, label, and store data in a safe place
- ◆ Another researcher may use
- ◆ Another statistical test may be necessary
- ◆ May want to reuse data in another study



Interpretation of Results

- ◆ Hypothesis
- ◆ Statistical and methods
- ◆ Practical significance
- ◆ Replication



Hypothesized Results

- ◆ State which of the hypothesis were supported and which were not
- ◆ State whether findings are in agreement with similar studies
- ◆ If report no significant difference – do not apologize
- ◆ State problems with study clearly and honestly
- ◆ State all threats to validity



Unhypothesized Results

- ◆ Don't add unhypothesized findings as a new hypothesis
- ◆ Do present findings or results on unforeseen relationships
- ◆ Unforeseen results may form bases for another study



Statistical Issues

- ◆ Factors for Valid inferences
 - Sample must be representative
 - Assumptions of statistical test must be met



Methods Issues

- ◆ Invalid or inaccurate results from
 - Ignoring measurement error
 - Low statistical power
 - Performing multiple comparisons



Statistical vs. Practical Significance

- ◆ Statistical significance does not ensure practical significance
- ◆ Evaluate worth
- ◆ Research precision and research accuracy
- ◆ Precision – how narrowly an estimate is specified
- ◆ Accuracy – how close an estimate is to true value



Replication Results

- ◆ Repeating study with different participants in same or different settings
- ◆ Greatly needed when new or unusual relationships are discovered
- ◆ Greatly needed when practical significance is reported