

Data Analysis and Generalizations

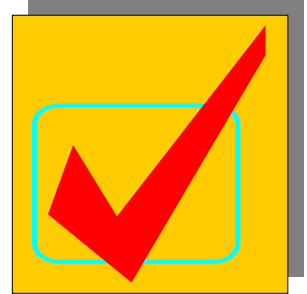
Peer Review

STUDENT ACTIVITY

Use these questions as you review a peer's investigation. Answer the following questions in detail. Use complete sentences and provide examples from the investigation report when answering.

The Research Question and Hypothesis:

Is the question written as a testable relationship (which includes the specific variables and the time span), and does it include a null hypothesis which specifies exactly what variables are to be measured and analyzed, but predicts no significant differences?



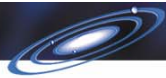
Examine the list of variables to be tested and the list of variables to be held constant. Are there reasons provided for excluding the variables listed as those to be held constant?

The Procedure:

Are the procedure steps written clearly and specifically enough so that you could replicate the investigation?

The Results:

Did the investigator record all the data necessary to address the research question as indicated in the procedure?



Was the data recorded in an organized manner that showed trends?

Are all graphs and data tables labeled correctly?

Data Analysis:

Did the investigator use the correct type of graph, that is, one that was appropriate for the data collected?

Did the investigator provide a rationale for determining the kind of analysis performed on the data?

Were statistical tests conducted to determine the significance of the results?



Does the “Results” paragraph only state whether or not significant differences were found?

Conclusion:

Does the “Conclusion” statement wording either accept or reject the null hypothesis?

Does the “Conclusion” statement specify the limiting factors of the study (e.g., limited population, time, resources)?