Conducting a Test Analysis

Format: Group

Time Frame: 30 minutes

Description
This activity provides students with an opportunity to analyze test instruments in an objective, reliable, and verifiable manner to confirm that tests are valid and bias-free.

Materials
- Test Analysis Tool (Sample)
- Test Analysis Tool (Blank)
- Computer or other device with spreadsheet software

Instructions
1. Open the spreadsheet and enter the following data into the red fields on the page labeled Test Score Distribution:
    - Class name
    - Test date
    - An “x” denoting each student’s raw score
    - Maximum raw score
    - Minimum raw score
2. Analyze the resulting numbers for the class mean score, median score, and range of scores (i.e., distribution or spread).
3. Analyze the resulting percentages of students scoring above and below the cutoff (e.g., 80%).
4. Answer the Test Analysis Questionnaire (next page).

Instructor Notes
- This is an analysis of the whole test, not each individual test question.
    - This activity assists an Instructor 2 with an overall view of the testing process.
    - The intent is to evaluate the test overall for indicators and maintain reliability and integrity.
- Analysis of individual test items (questions) is determined at the Instructor 3 level.

Test Analysis Questionnaire

Yes	No	
___	___	Were all the scores above the minimum acceptable performance?
___	___	Is there bunching anywhere other than the middle? • Bunching is a concentration of scores in the same percentage area.
___	___	Is there bunching at the low end? • This may indicate the test is too difficult or that the instructor did not cover the material adequately.
___	___	Is there bunching at the high end? • This may indicate the test is too easy or that the instructor "taught the test."
___	___	Is there a narrow range of scores? • This may indicate a test integrity issue or test discrimination issue.

All "No" indicators should reflect a reliable test.

If less than four (4) "No" indicators, test reliability may need to be evaluated and corrected.

A low standard deviation indicates that the data points tend to be very close to the mean.

A high standard deviation indicates that the data points are spread out over a large range of values.