

# Item Analysis

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The Item Analysis report allows you to analyze each question of a selected test evaluating test difficulty. The sample report shows the last page of the report, because that is where the Total Weight is displayed. The report contains the following information:

- 1 **Question** shows the question number (in bold) and possible answers to the test question. The row marked *Oth* (other) is the number of students in each group who marked either no answer or multiple answers. An asterisk to the right of an answer number indicates the correct answer to the question.  
  
A 5-response test will show rows 1 thru 5. A test with 2, 3, or 4 responses will also show rows 1 thru 5. A 10-response test will show rows 1 thru 10. A test with 6, 7, 8, or 9 responses will also show rows 1 thru 10.
- 2 **Upper Quartile** shows the number of individuals in the upper quarter (76th percentile and up) of the test group that selected each test item alternative.
- 3 **Lower Quartile** shows the number of individuals in the lower quarter (25th percentile and lower) of the test group that selected each test item alternative.
- 4 **Total Count** shows the total number of students who responded to each alternative.
- 5 **Total %** shows the total percentage of students who responded to each alternative.
- 6 **Discrimination Index** is a measure of the ability of an item response to discriminate between those individuals who attained a high score on the test and those who attained a low score. Refer to the *Glossary* for a description of the formula used.
- 7 **Difficulty Factor** is a measure of how difficult the question was to answer correctly. The higher the difficulty factor, the easier the question is. Refer to the *Glossary* for a description of the formula used.
- 8 **Weight** is the value in number of points assigned to the question. A number greater than 1 is assigned by editing the key sheet at scanning time.
- 9 **Total Weight** is the cumulative number of points for all questions in this test. This is shown only on the last page of the report.

The following summary information is printed at the bottom of this report:

- 1 **Number of Respondents** is the number of respondents included in the report.
- 2 **Total in Upper/Lower Quartile** is the number of students in the upper quarter and the number of students in the lower quarter of the test group.
- 3 **Number of Test Items** is the number of test questions in this test.
- 4 **Kuder Richardson 20** is a coefficient of reliability. Refer to the *Glossary* for a full description of this term.
- 5 **Kuder Richardson 21** is another coefficient of reliability. Refer to the *Glossary* for a description of this term.