

Grade Reports: Report 101 - Student Statistics Report

The Student Statistics report provides the scores for all students in the class. Students are listed down the left side of the report, and then the grade, objective and subjective (if applicable) scores are listed for each student. If a scaled score is defined, it is also displayed. If a benchmark score was defined, the benchmark difference graph is also displayed. If learning objectives are defined, separate tables show the student information for the overall test and the learning objectives.

Note: If you have a student identifier on your form and therefore in your data set (e.g., a student name or ID number) and want it displayed on this report, mark it as an Analysis Respondent ID in the form template (Advanced Properties) or by using the Grade Wizard (Question Properties).

The following options are available for the Student Statistics Report:

Option	Description
Student	Lists the student identified on the test. If you are using Analysis Respondent IDs, this information appears in the Student column (e.g., Name, ID number, etc.). If you have not designated any question as an Analysis Respondent ID, sequential numbers are assigned.
Grade	Displays the grade the student achieved based on the grade scale you chose in the Grade Wizard or set as your default Grade Scale in the Remark Quick Stats Preferences (Tools Preferences Overall Grade Scale).
Scaled Score	Displays the scaled score for each student, as retrieved from an external database file. Scores can be scaled based on Total Score, Percent Score or Percentile. This column only displays if a Scaled Score was set up in the Grade Wizard or is set as a default scaled score in the Remark Quick Stats Preferences (Tools Preferences Overall Scaled Score).
Total	Displays the total score achieved by each student. The first number is the number of points the student received; the second number is the total number of possible points on the test.
Percent	Displays the percent score achieved by each student.
Benchmark Difference	If a benchmark score was defined in the Grade Wizard, displays the difference between the student's score and the established benchmark, as well as a bar chart showing the relationship between the defined benchmark and the student's score. The vertical blue line depicts the benchmark. If students' bar charts are green, they scored higher than the benchmark. If students' bar charts are red, they scored lower than the benchmark. The bar charts can be customized in the report's properties (Tools Report Properties).
Z Score	Displays the Z Score, which indicates how many standard deviations a score is above or below the mean (symbolized by + and -).
T Score	Displays the T Score, which is a converted Z score used to convert scores that are negative, fractional or both. The T score can be expressed as $10z + 50$.
ETS Score	Displays the ETS Score, which is a converted Z score used to convert scores that are negative, fractional or both. It is used by the Educational Testing Service and can be expressed as $100z + 500$.
Deviation IQ	Displays the Deviation IQ, which is a converted Z score used to convert scores that are negative, fractional or both. The

	Deviation IQ can be expressed as $15z + 100$.
Percentile	Displays the percentile, which is the percentage of scores that are lower than the listed score. For example, a test score that is greater than 50% of the scores of people taking the test is said to be at the 50th percentile.
[Objective] Total	Displays the total number of objective points obtained on the test, followed by the total number of possible objective points for the test. This section is displayed when you have included subjective questions on the test to differentiate the objective and subjective scores.
[Objective] Correct	Displays the number of correct questions for the objective portion of the test.
[Objective] Incorrect	Displays the number of incorrect questions for the objective portion of the test.
[Objective] Missing	Displays the number of missing (e.g., non-valid data) questions for the objective portion of the test.
Subjective Total	Displays the number of subjective points earned on the test, followed by the total number of possible subjective points for the test. This section only displays if there is a subjective question (or questions) on the test.

The following table summarizes the Student Statistics Report Properties (accessible by clicking Tools|Report Properties):

Report Section	Report Property	Description
Report Header	Custom Report Title	Sets the title of the report.
	Title Text Color	Sets the color of the title text.
	Repeat Header	Sets whether to put the report title on every report page or the first page only.
	Header Layout	Sets a custom header layout where you can insert text, statistics and graphics.
	Display Custom Header	Sets whether to display the custom header you have defined. This setting allows you to define a custom header yet choose not to display it without having to completely remove it.
	Display Filter	Sets whether to display the criteria used to filter the report, if you have applied a filter.
	Report Format	Sort Students
Sort Order		Sets whether to sort the students (based on criteria above) in ascending or descending order.
Value Bar Layout		Sets the look of the Value Bar, which is the bar chart that tracks student grade percentages.
Row Shading		Sets whether to shade every other row in the chart.
Page Size		Sets the page size to A4, US Letter or US Legal.
Orientation		Sets the overall report orientation: Landscape or Portrait.
Data Font Size		Sets of the size of the font used in the report.
Font		Sets the font type used in the report.
Decimal Places		Sets the number of decimal places to display for the statistics in the report (maximum of two decimal places).
Report Color	Sets the overall report color. This color affects the header title, lines and borders used in the	

report.		
Summary Information	Display Total Score	Sets whether to show the total score earned for each student.
	Display Percent Score	Sets whether to show the percent score earned for each student.
	Display Scaled Score	Sets whether to show the scaled score earned for each student, if applicable.
	Display Grade	Sets whether to show the grade earned for each student.
	Display Z Score	Sets whether to show the Z Score earned for each student.
	Display T Score	Sets whether to show the T Score earned for each student.
	Display ETS Score	Sets whether to show the ETS Score earned for each student.
	Display Deviation IQ	Sets whether to show the Deviation IQ for each student.
	Display Percentile	Sets whether to show the Percentile for each student.
	Display Missing	Sets whether to show the number of missing responses on the test for each student. Missing data is any data that is not valid.
	Display Incorrect	Sets whether to show the number of incorrect responses on the test for each student.
	Display Correct	Sets whether to show the number of correct responses on the test for each student.
	Display Benchmark Difference	Sets whether to show the Benchmark Difference between the current score and the expected benchmark score, if benchmarks are used.
Report Footer	Left	Sets the footer text at the bottom left of the report.
	Center	Sets the footer text at the bottom center of the report.
	Right	Sets the footer text at the bottom right of the report.

Grade Reports: Report 104 - Test Statistics Report

The Test Statistics Report displays descriptive statistics about the overall test as well as each learning objective, if applicable. If there are subjective questions on the test, a breakdown of statistics for the overall test, objective items and subjective items is displayed. You may show or hide groups of statistics in the report properties (Tools|Report Properties). The following statistics are available:

Group Name	Statistic	Description
Score Data	Number of Graded Items	Displays the number of items on the test that were graded.
	Total Points Possible	Displays the total number of points on the test.
	Maximum Score	Displays the highest score from the graded tests.
	Minimum Score	Displays the lowest score from the graded tests.
Statistics	Mean Score	Displays the average score of all of the graded tests.
	Mean Percent Score	Displays the average percent score of all of the graded tests.
	Benchmark Score	Displays the benchmark percent score entered in the Grade Wizard, if applicable. This is the score you want your students to achieve to be considered proficient. You may compare it to the Mean Percent Score to see how students are measuring up to the benchmark.
	Range of Scores	The range is the distance between the highest and lowest score.
	Standard Deviation	A measure of the dispersion of a set of data from its mean. The more spread apart the data is, the higher the deviation. It is calculated by taking the square root of the variance.
	Variance	The amount that each score deviates from the mean squared (by multiplying it by itself).
	Percentiles	Percentile (25 and 75)
Median Score		The median of the scores from the graded tests.
Inter Quartile Range		The difference between the 75th percentile and the 25th percentile.
Confidence Intervals	Confidence Interval (1, 5, 95 and 99%)	A confidence interval gives an estimated range of values that is likely to include an unknown population parameter, the estimated range being calculated from a given set of sample data. If independent samples are taken repeatedly from the same population, and a confidence interval calculated for each sample, then a certain percentage (confidence level) of the intervals includes the unknown population parameter. Remark Classic OMR calculates Confidence Intervals of 1%, 5%, 95% and 99%.
Test Reliability	Kuder-Richardson Formula 20	This formula measures test reliability and is an overall measure of internal consistency. A

		higher value indicates a stronger relationship between items on the test.
	Kuder-Richardson Formula 21	This formula measures test reliability and is an overall measure of internal consistency. A higher value indicates a stronger relationship between items on the test.
	Coefficient (Cronbach) Alpha	A coefficient that describes how well a group of items focuses on a single idea or construct.

The following table summarizes the Test Statistics Report Properties (accessible by clicking Tools|Report Properties):

Report Section	Report Property	Description
Report Header	Custom Report Title	Sets the title of the report.
	Title Text Color	Sets the color of the title text.
	Repeat Header	Sets whether to put the report title on every report page or the first page only.
	Header Layout	Sets a custom header layout where you can insert text, statistics and graphics.
	Display Custom Header	Sets whether to display the custom header you have defined. This setting allows you to define a custom header yet choose not to display it without having to completely remove it.
	Display Filter	Sets whether to display the criteria used to filter the report, if you have applied a filter.
Report Format	Data Font Size	Sets of the size of the font used in the report.
	Font	Sets the font type used in the report.
	Page Size	Sets the page size to A4, US Letter or US Legal.
	Orientation	Sets the overall report orientation: Landscape or Portrait.
	Decimal Places	Sets the number of decimal places to display for the statistics in the report (maximum of two decimal places).
	Report Color	Sets the overall report color. This color affects the header title, lines and borders used in the report.
Display Statistics	Test Reliability	Sets whether to display the Test Reliability section of the report, which includes the Kuder-Richardson and Coefficient Alpha statistics.
	Confidence Intervals	Sets whether to display the Confidence Interval section of the report, which includes 1, 5, 95 and 99% confidence intervals.
	Percentiles	Sets whether to display the Percentiles section of the report, which includes 25th and 75th percentile, interquartile range and median score.
	Statistics	Sets whether to display the Statistics section of the report, which includes mean score, mean percent score, benchmark score, range of scores, standard deviation and variance.
	Score Data	Sets whether to display the Score Data section of the report, which includes number of graded items, total points possible, maximum score and minimum score.
Report Footer	Left	Sets the footer text at the bottom left of the report.
	Center	Sets the footer text at the bottom center of the

Right	report. Sets the footer text at the bottom right of the report.
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Grade Reports: Report 105 – Student Response Report

The Student Response Report provides a class view of all test responses by student and by question. The students are listed down the left side of the report. The questions are listed across the top of the report. Each student's answer to each graded question is listed within a colored box: green for correct responses and red for incorrect responses. A white empty box means the student left the question blank or entered an invalid response (e.g., multiple responses when multiple responses are not allowed). To the far right of the report total score, percent score, grade and scaled score (if applicable) are listed. At the bottom of the report the percentage of students who answered the question correctly is listed, as well as averages for the total score, percent score, and grade. This report provides visual insight to both student and question performance. The colors used in the report can be customized in the report's properties.

The following table summarizes the Student Response Report Properties (accessible by clicking Tools|Report Properties):

Report Section	Report Property	Description
Report Header	Display Legend	Sets whether to show the report's legend. The legend explains what the colors on the report mean and is visible at the top of the report when set to show.
	Custom Report Title	Sets the title of the report.
	Title Text Color	Sets the color of the title text.
	Repeat Header	Sets whether to put the report title on every report page or the first page only.
	Header Layout	Sets a custom header layout where you can insert text, statistics and graphics.
	Display Custom Header	Sets whether to display the custom header you have defined. This setting allows you to define a custom header yet choose not to display it without having to completely remove it.
	Display Filter	Sets whether to display the criteria used to filter the report, if you have applied a filter.
Report Format	Question Header	Sets how to display the questions across the top of the report: Auto Number, Question Name (default) or Item Number. If you have long question names, you may wish to use Auto Number or Item Number.
	Page Breaks Between Groups	Sets whether to place a page break after the information for each group is displayed.
	Color Subjective Questions	Sets whether to apply the correct/incorrect/blank color to subjective questions.
	Sort Students	Sets whether to sort the students by: Respondent ID, Percent Score, Total Score, Percentile or Grade.
	Sort Order	Sets whether to sort the students (based on criteria above) in ascending or descending order.
	Shade Statistics	Sets whether to apply gray shading to the last few columns of statistics within the report.
	Page Size	Sets the page size to A4, US Letter or US Legal.
	Orientation	Sets the overall report orientation: Landscape or Portrait.
	Header Font Size	Sets of the size of the font used in the header column and row of the report (the students and

		questions).
	Font	Sets the font type used in the report.
	Correct Border Style	Sets the color for the border around each correct response: Transparent, Solid (default), Dash, Dot, Dash-Dot, Dash-Dot-Dot.
	Correct Text Color	Sets the color for the text depicting each correct response (black by default).
	Correct Color	Sets the color for the background of each correct response (green by default).
	Incorrect Border Color	Sets the color for the border around each incorrect response: Transparent, Solid (default), Dash, Dot, Dash-Dot, Dash-Dot-Dot.
	Incorrect Text Color	Sets the color for the text depicting each incorrect response (black by default).
	Incorrect Color	Sets the color for the background of each incorrect response (red by default).
	Unanswered Border Style	Sets the color for the border around each unanswered or invalid response: Transparent, Solid (default), Dash, Dot, Dash-Dot, Dash-Dot-Dot.
	Unanswered Color	Sets the color for the background of each unanswered or invalid response (white by default).
	Decimal Places	Sets the number of decimal places to display for the statistics in the report (maximum of two decimal places).
	Report Color	Sets the overall report color. This color affects the header title, lines and borders used in the report.
Summary Statistics	Display Answer Key	Sets whether to display the answer key labels across the top of the report (on the line above the student responses).
	Display Percent Correct	Sets whether to display the Percent Correct row below the student responses. The Percent Correct row shows the percentage of students who answered the question correctly. For subjective questions and the summary statistics at the end of the report, the Percent Correct line shows the average.
	Display Total Score	Sets whether to display the Total Score column at the end of the report.
	Display Percent Score	Sets whether to display the Percent Score column at the end of the report.
	Display Grade	Sets whether to display the Grade column at the end of the report.
	Display Scaled Score	Sets whether to display the Scaled Score column at the end of the report, if applicable.
Report Footer	Left	Sets the footer text at the bottom left of the report.
	Center	Sets the footer text at the bottom center of the report.
	Right	Sets the footer text at the bottom right of the report.

Grade Reports: Report 106 - Condensed Test Report

The Condensed Test report provides a summary of basic tests statistics. The header optionally contains statistical information about the test results as a whole. The body of the report shows each question, its response frequency, distractor information, group responses and the point biserial calculation. The following statistics are available:

Statistic	Meaning
Total Possible Points	Displays the total number of points possible on the test (objective and subjective, if applicable).
Total Students	Displays the total number of students who submitted responses to the test.
Standard Deviation	A measure of the dispersion of a set of data from its mean. The more spread apart the data is, the higher the deviation. It is calculated by taking the square root of the variance.
Median Score	The middle of a distribution: half the values are above the median and half are below the median.
Mean Score	Displays the average score of all of the graded tests.
Reliability Coefficient (KR20)	This formula measures test reliability and is an overall measure of internal consistency. A higher value indicates a stronger relationship between items on the test.
Maximum Score	Displays the highest score from the graded tests.
Minimum Score	Displays the lowest score from the graded tests.
Range of Scores	The range is the distance between the highest and lowest score.
No. Question	Displays the item number from the test.
Question	Displays the question text for the question as defined in the form template.
Correct Answer	Displays the correct answer for each question, as obtained from the answer key.
Response Frequencies	Displays the percentage or total number of times a particular answer choice was chosen by students for this particular question (e.g., the percentage or total number of times the answer choice appears in the data set).
Non-Distractor	Displays the answer choices that were not selected at all by the students (have a frequency of 0).
Correct Group Responses	The Total% column displays the percentage of students who answered the question correctly. The Upper 27% column displays the percent correct for the individual question based on the students who scored in the upper 27% for the test as a whole. The Lower 27% column displays the percent correct for the individual question based on the students who scored in the lower 27% for the test as a whole.
Point Biserial	A measurement of the discrimination of an item. It indicates the relationship between a response for a given item and the overall test score of the respondent. The point biserial tells you if a question was a good discriminator between the better students and the poorer students. Point biserial ranges from -1 to 1. A positive value indicates that the students who did well on the test answered the question correctly. NOTE: Point biserial is not available when using Standard multiple answer keys.

The following table summarizes the Condensed Test Report Properties (accessible by clicking Tools|Report Properties):

Report Section	Report Property	Description
Report Header	Display Legend	Sets whether to show the report's legend. The legend explains what the colors on the report mean and is visible at the top of the report when set to show.
	Custom Report Title	Sets the title of the report.
	Title Text Color	Sets the color of the title text.
	Repeat Header	Sets whether to put the report title on every report page or the first page only.
	Header Layout	Sets a custom header layout where you can insert text, statistics and graphics.
	Display Custom Header	Sets whether to display the custom header you have defined. This setting allows you to define a custom header yet choose not to display it without having to completely remove it.
	Display Filter	Sets whether to display the criteria used to filter the report, if you have applied a filter.
Report Format	Display Question Number	Sets whether to display the No. column in the report, showing the question number.
	Display Question Name	Sets whether to display the Question Name column of the report, showing the question name from the form template.
	Display Correct Answers	Sets whether to display the Correct Answer column of the report.
	Display Non Distractors	Sets whether to display the Non Distractors section of the report, showing the answer choices that were not chosen by students.
	Display Correct Group	Sets whether to display the Correct Group section of the report.
	Display Point Biserial	Sets whether to display the Point Biserial column of the report.
	Page Size	Sets the page size to A4, US Letter or US Legal.
	Orientation	Sets the overall report orientation: Landscape or Portrait.
	Data Font Size	Sets of the size of the font used in the report.
	Font	Sets the font type used in the report.
	Row Shading	Sets whether to shade every other row in the chart.
	Suspect Distractor Color	Sets the color to shade distractors that are chosen more times than the correct response.
	Response Type	Sets the display for the responses listed in the Response Frequencies row: Labels, Values, Indices. Labels refer to the labels entered in the form template Labels grid, Values refer to the values entered in the form template Values grid and Indices refers to the numeric index of the answer choice (e.g., if the answers are A-E, A is the first in the index and E is the last in the index).
	Response Frequency Type	Sets the display type for the response frequencies: Percents (default) or Totals.
Decimal Places	Sets the number of decimal places to display for the statistics in the report (maximum of two decimal places).	
Report Color	Sets the overall report color. This color affects the header title, lines and borders used in the report.	

Test Stats Options	Display Test Stats	Sets whether to display the test stats section in the header of the report (Total Possible Points through Range of Scores).
	Repeat Test Stats	Sets whether to repeat the Test Stats section of the report on every report page. Set Repeat Test Stats to First Page Only to have the Test Stats section only display on the first page of the report. Set Repeat Test Stats to Every Page to have the Test Stats section display on the every page of the report.
Report Footer	Left	Sets the footer text at the bottom left of the report.
	Center	Sets the footer text at the bottom center of the report.
	Right	Sets the footer text at the bottom right of the report.