## GRAVIC.

# Remark Quick Stats ${ }^{\circledR}$ Whitepaper 



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## Remark Quick Stats Overview

Remark Quick Stats allows you to tabulate surveys or grade tests with the click of a button. For a survey, you can run reports such as an item analysis, item statistics or crosstabs to view your results. If you administer tests, the software can automatically grade them. For a test, you can specify an answer key, grade scale, learning objectives, benchmark scores and other options, and then the software can grade the test and produce statistics and graphs representing the item analysis, frequency distribution, student scores and several other test statistics. Remark Quick Stats also produces a grade report for each student which can be printed and handed back to the student.

Remark Quick Stats calculates the following Statistics:

| Report Type | Available Items for Graphing |
| :--- | :--- |
| Item Analysis (survey) | Frequency, Percent, Cumulative Percent, Valid Percent, Cumulative <br> Valid Percent |
| Item Analysis (grade) | Frequency, Percent, Point Biserial |
| Item Statistics | Sample Size, Number Missing, Mean, Variance, Standard Deviation, <br> Standard Error, Minimum, Maximum, Median, Range, Sum, Sum <br> Squared, Skewness, Kurtosis, T Value, Mean Absolute Deviation, <br> Percentiles, Inter Quartile Range, Confidence Intervals, P Value <br> (grade only), Point Biserial (grade only) |
| Respondent Statistics | Grade, Total Score, Percent Score, Objective Score, Subjective <br> Score, Z Score, T Score, ETS Score, Deviation IQ, Number Correct, <br> Number Incorrect, Number Missing |
| Crosstabs | Two or more variables can be selected for crosstabulation |
| Frequency Distribution | Frequency |

## System Requirements

The following are the minimum system requirements necessary to run Remark Quick Stats.

- Personal computer with a $400-\mathrm{MHz}$ or faster processor
- Microsoft Windows 2000, XP or Server 2003
- 512 MB RAM
o Important Note: Analysis reports require memory to run. Lengthy or graphicintensive reports may take longer to run; you may need additional memory to run these reports.
- 250 MB free hard disk space to install software
- 1 GB free hard disk space recommended to use software
- Screen/monitor resolution of $1024 \times 768$ or higher and at least 16 -bit color ( 32 -bit color recommended)
- Mouse
- CD-ROM drive (for installation purposes)
- Windows-supported printer (optional)

Remark Quick Stats is automatically installed when you install the Remark Office OMR software. You do not need to perform any additional installation steps.


## Condensed Item Analysis Report

| Purpose |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Label | Total | Percent |  |  |
| Vacation | 4 | 40.00 |  |  |
| Business | 4 | 40.00 |  |  |
| Sporting Event | 1 | 10.00 |  |  |
| Other | 1 | 10.00 |  |  |
|  |  |  |  |  |


| Heard |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Total |  |  | Percent |  |
| Label | Tabl |  |  |  |
| Travel Agent | 0 | 0.00 |  |  |
| Television | 5 | 50.00 |  |  |
| Newspaper | 1 | 10.00 |  |  |
| Radio | 1 | 10.00 |  |  |
| Internet | 2 | 20.00 |  |  |
| Magazine | 1 | 10.00 |  |  |
| Recommendation | 1 | 10.00 |  |  |
| Other | 0 | 0.00 | $\square$ |  |


| Nights |  |  |
| :---: | :---: | :---: |
| Label | Total | Percent |
| 1 | 1 | 10.00 |
| 2 | 3 | 30.00 |
| 3 | 0 | 0.00 |
| 4 | 1 | 10.00 |
| 5 | 3 | 30.00 |
| 6 | 1 | 10.00 |
| 7 | 1 | 10.00 |
| 8 | 0 | 0.00 |


| Label | Total | Percent |
| :---: | :---: | :---: |
| Advertised number/address | 2 | 20.00 |
| Travel Agent | 4 | 40.00 |
| Friend/Relative | 1 | 10.00 |
| Internet | 2 | 20.00 |
| Chamber of Commerce | 0 | 0.00 |
| Other | 1 | 10.00 |

The Condensed Item Analysis Report displays an in-depth look at individual question statistics. The question text (or question name if no question text was defined) is displayed at the top of each table. A bar chart is displayed to the right of the table containing the statistics.

Test Statistics Report

|  | Overall | Objective | Subjective | Spelling | Grammar | Verbs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Score Data |  |  |  |  |  |  |
| Number of Graded Items | 30 | 30 | 2 | 8 | 10 | 7 |
| Total Points Possible | 70 | 60 | 10 | 16 | 20 | 14 |
| Maximum Score | 66 | 58 | 10 | 16 | 20 | 14 |
| Minimum Score | 44 | 42 | 2 | 10 | 14 | 6 |
| Statistics |  |  |  |  |  |  |
| Mean Score | 54.29 | 44.00 | 7.00 | 13.14 | 16.86 | 10.86 |
| Mean Percent Score | 77.55 | 73.33 | 70.00 | 82.14 | 84.29 | 77.55 |
| Benchmark Score | 75.00 | 75.00 | 75.00 | 77.00 | 70.00 | 80.00 |
| Range of Scores | 22.00 | 16.00 | 8.00 | 6.00 | 6.00 | 8.00 |
| Standard Deviation | 8.69 | 6.68 | 3.05 | 2.27 | 2.27 | 2.79 |
| Variance | 75.57 | 44.57 | 9.29 | 5.14 | 5.14 | 7.81 |
| Percentile |  |  |  |  |  |  |
| Percentile (25) | 47.00 | - | - | 10.00 | 16.00 | 8.00 |
| Median Score | 54.00 | - | - | 14.00 | 16.00 | 12.00 |
| Percentile (75) | 65.00 | - | - | 14.00 | 20.00 | 12.00 |
| Inter Quartile Range | 18.00 | - | - | 4.00 | 4.00 | 4.00 |
| Confidence Intervals |  |  |  |  |  |  |
| 1\% | 42.11 | - | - | 9.97 | 13.68 | 6.94 |
| 5\% | 46.25 | - | - | 11.05 | 14.76 | 8.27 |
| 95\% | 62.33 | - | - | 15.24 | 18.95 | 13.44 |
| 99\% | 66.47 | . | - | 16.32 | 20.03 | 14.77 |
| Test Reliability |  |  |  |  |  |  |
| Kuder-Richardson Formula 20 | 0.66 | - | - | 0.20 | 0.05 | 0.56 |

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 will be displayed. You may show or hide groups of statistics in the report properties.

Test Item Statistics Report

| Question |  | Summary Statistics |  |  |  | Reliability |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Question | Points | Graded | Correct | Incorrect | No Response | $\begin{array}{r} \text { Point } \\ \text { Biserial } \end{array}$ | P-Value |
| Questions1 | 2.00 | 7 | 4 | 3 | 0 | 0.65 | 0.57 |
| Questions2 | 2.00 | 7 | 6 | 1 | 0 | 0.23 | 0.86 |
| Questions3 | 2.00 | 7 | 6 | 1 | 0 | 0.35 | 0.86 |
| Questions4 | 2.00 | 7 | 5 | 2 | 0 | 0.16 | 0.71 |
| Questions5 | 2.00 | 7 | 4 | 3 | 0 | 0.05 | 0.57 |
| Questions6 | 2.00 | 7 | 6 | 1 | 0 | -0.02 | 0.86 |
| Questions7 | 2.00 | 7 | 6 | 1 | 0 | 0.23 | 0.86 |
| Questions8 | 2.00 | 7 | 6 | 1 | 0 | 0.23 | 0.86 |
| Questions9 | 2.00 | 7 | 5 | 2 | 0 | 0.54 | 0.71 |
| Questions10 | 2.00 | 7 | 7 | 0 | 0 | - | 1.00 |
| Questions11 | 2.00 | 7 | 6 | 1 | 0 | 0.23 | 0.86 |
| Questions12 | 2.00 | 7 | 6 | 1 | 0 | 0.23 | 0.86 |
| Questions13 | 2.00 | 7 | 4 | 3 | 0 | -0.12 | 0.57 |
| Questions14 | 2.00 | 7 | 6 | 1 | 0 | 0.35 | 0.86 |
| Questions15 | 2.00 | 7 | 5 | 2 | 0 | 0.45 | 0.71 |
| Questions16 | 2.00 | 7 | 3 | 4 | 0 | 0.64 | 0.43 |
| Questions17 | 2.00 | 7 | 7 | 0 | 0 | - | 1.00 |
| Questions18 | 2.00 | 7 | 6 | 1 | 0 | 0.35 | 0.86 |
| Questions19 | 2.00 | 7 | 7 | 0 | 0 | - | 1.00 |
| Questions20 | 2.00 | 7 | 6 | 1 | 0 | 0.35 | 0.86 |
| Questions21 | 2.00 | 7 | 7 | 0 | 0 | - | 1.00 |
| Questions22 | 2.00 | 7 | 3 | 4 | 0 | 0.56 | 0.43 |
| Questions23 | 2.00 | 7 | 5 | 1 | 1 | 0.50 | 0.71 |
| Questions24 | 2.00 | 7 | 6 | 1 | 0 | 0.35 | 0.86 |
| Questions25 | 2.00 | 7 | 5 | 2 | 0 | 0.45 | 0.71 |
| The Test Item Statistics Report displays descriptive statistics for each question on the test. |  |  | 4 | 3 | 0 | 0.05 | 0.57 |
|  |  |  | 7 | 0 | 0 | - | 1.00 |
|  |  |  | 6 | 1 | 0 | 0.23 | 0.86 |
|  |  |  | 7 | 0 | 0 | - | 1.00 |
|  |  |  | 6 | 1 | 0 | -0.02 | 0.86 |

## Student Statistics Report

| Overall |  |  |  |  |  |  | Benchmark: 75.00\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Overall |  |  |  |  | Objective | Subective |
| Student | Grade | Total | Percent |  | enchmark Difference | Total | Total |
| Martin Redman | B | $56.00 / 70.00$ | 80.00 | 5.00 |  | 48.00 / 60.00 | $8.00 / 10.00$ |
| Susan Wallace | A | $65.00 / 70.00$ | 92.86 | 17.86 |  | $58.00 / 60.00$ | $7.00 / 10.00$ |
| Elmer Hyde | C | $54.00 / 70.00$ | 77.14 | 2.14 |  | 44.00 / 60.00 | 10.00 / 10.00 |
| Sally Calame | D | 44.00 / 70.00 | 62.86 | (-12.14) |  | 42.00 / 60.00 | $2.00 / 10.00$ |
| Brenda Hamilton | D | $48.00 / 70.00$ | 68.57 | (-6.43) |  | 44.00 / 60.00 | $4.00 / 10.00$ |
| Willie Williams | D | $47.00 / 70.00$ | 67.14 | (-7.86) |  | 42.00 / 60.00 | $5.00 / 10.00$ |
| Warren Goodale | A | $66.00 / 70.00$ | 94.29 | 19.29 |  | $56.00 / 60.00$ | $10.00 / 10.00$ |
| Mean |  | 54.29 | 77.55 | 2.55 |  | 47.71 | 6.57 |



| Grammar |  |  |  |  |  | Benchmark: 70.00\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Overall |  |  |  | Objective | Subective |
| Student | Grade | Total | Percent |  | Total | Total |
| Martin Redman | Pass | 16.00 / 20.00 | 80.00 | 10.00 | $16.00 / 20.00$ | $0.00 / 0.00$ |
| Susan Wallace | Pass | $20.00 / 20.00$ | 100.00 | 30.00 | $20.00 / 20.00$ | $0.00 / 0.00$ |
| Elmer Hyde | Pass | $16.00 / 20.00$ | 80.00 | 10.00 | $16.00 / 20.00$ | $0.00 / 0.00$ |
| Sally Calame | Pass | $16.00 / 20.00$ | 80.00 | 10.00 | $16.00 / 20.00$ | $0.00 / 0.00$ |
| Brenda Hamilton | Pass | $14.00 / 20.00$ | 70.00 | 0.00 | $14.00 / 20.00$ | $0.00 / 0.00$ |
| Willie Williams | Pass | $16.00 / 20.00$ | 80.00 | 10.00 | $16.00 / 20.00$ | $0.00 / 0.00$ |
| Warren Goodale | Pass | $20.00 / 20.00$ | 100.00 | 30.00 | $20.00 / 20.00$ | $0.00 / 0.00$ |
| Mean |  | 16.86 | 84.29 | 14.29 | 16.86 | 0.00 |

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 benchmark score was defined, the benchmark difference graph is also displayed. If learning objectives are defined, separate tables will show the student information for the overall test and the learning objectives.

## Class Frequency Distribution

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Spelling | Mean Score: $82 \%$ |  |  |  |
| Grade | Percent Score | Raw Score | Frequency |  |
| Pass | $70-100$ | $11-16$ | 5 |  |
| Fail | $0-69$ | $0-10$ | 2 |  |



The Class Frequency Distribution report displays the breakdown of scores for an entire class. It also shows the mean score and the benchmark difference, if applicable. If you have defined learning objectives in the Grade Wizard, a breakdown of scores on each learning objective will also be displayed.

The table across the top of the report shows the grades, scores and frequency of each grade. The chart shows the score across the $X$ axis (bottom) and the frequency of that score along the $Y$ axis (left side).

## Grade Report by Group

| Objective <br> Gender <br> Gifted | Grade | Percent | Benchmark Difference |
| :---: | :---: | :---: | :---: |

Benchmark: 75

| Overall | C | 77.55 | 2.55 |
| :---: | :---: | :---: | :---: |
| Female D 74.76  |  |  |  |
| Gifted | D | 65.71 | (-9.29) |
| Not Gifted | A | 92.86 | 17.86 |
| Male | A | 79.64 | 4.64 |
| Gifted | A | 87.14 | 12.14 |
| Not Gifted | C | 72.14 | (-2.86) |

Benchmark: 77

| Spelling | Pass | 82.14 |  | 5.14 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gifted | Pass | 75.00 |  | (-2.00) |
| Not Gifted | Pass | 100.00 |  | 23.00 |
| Male | Pass | 81.25 |  | 4.25 |
| Gifted | Pass | 87.50 | , | 10.50 |
| Not Gifted | Pass | 75.00 | , | (-2.00) |

Benchmark: 70

| Grammar | Pass | 84.29 |  | 14.29 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gifted | Pass | 75.00 |  | 5.00 |
| Not Gifted | Pass | 100.00 |  | 30.00 |
| Male | Pass | 85.00 |  | 15.00 |
| Gifted | Pass | 90.00 |  | 20.00 |
| Not Gifted | Pass | 80.00 | - | 10.00 |

The Comparative Grade Report allows you to see test statistics broken down by specific criteria. You can select regions from the data on which to base the report. For example, this report is especially useful for comparing demographic groups. If your students mark a category such as ethnicity on their test answer sheet, you can view the data by ethnic group.

## Detailed Item Analysis Report

Questions1

| Answer Choice | Frequency | Percent Point Biserial |  | Graph |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{A}^{*}$ | 4 | 57.14 | 0.65 |  |  |  |
| B | 0 | 0.00 | - |  |  |  |
| C | 1 | 14.29 | -0.35 |  |  |  |
| D | 1 | 14.29 | -0.23 |  |  |  |
| E | 1 | 14.29 | -0.35 |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Questions2


The Detailed Item Analysis Report provides an in-depth look at individual question statistics. Each question displays in a separate table. The question text (or question name if no question text was defined) is displayed at the top of each table. A graph of the frequency appears to the right of the table. You may customize the graph by modifying the report properties.

## Crosstabulation Report

Crosstabulation: Academic Level * Major

|  | Liberal Arts | English | Mathematics | Biology | History | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Freshman | 3 | 3 | 2 | 3 | 1 | 12 |
| Sophomore | 5 | 2 | 7 | 3 | 2 | 19 |
| Junior | 1 | 5 | 2 | 5 | 1 | 14 |
| Senior | 3 | 1 | 2 | 3 | 1 | 10 |
| Total | 12 | 11 | 13 | 14 | 5 | 55 |

The Crosstabulation Report generates a table displaying the number of cases falling into each combination of the categories of two or more categorical variables. Crosstabulation is a method of examining the relationships among variables that are at the nominal or ordinal level. The categories of one variable are listed in the rows and of a second variable in the columns. You choose specific questions from your data to use in the crosstabulation. The frequencies displayed in the Crosstabulation report can be totals or percents.

## Response Report by Respondent

Respondent: Shilpa Pai

| Question | Response |
| :---: | :---: |
| First Name | Shilpa |
| Student Last Name | Pai |
| First reason why you deserve an A |  |
| Second reason why you deserve an $A$ | 2) $\qquad$ Whanayd an time |
|  | 3) Athungth of arequmotitim Etuax |
| Third reason why you deserve an $A$ |  |

## Respondent: Jamie Allen

| Question | Response |
| :---: | :---: |
| First Name | Jamie |
| Student Last Name | Allen |
| First reason why you deserve an A | 1) H/EA GAally OF wONA $\qquad$ |
|  | 2) inalue fo ne C/A5S |
| Second reason why you deserve an A |  |
| Third reason why you deserve an $A$ | 3) NEVER MISSED A CLASS |

The Response Report by Respondent displays respondents' answers to the questions on the form. By default, any questions that are not graded or tabulated in the form template can be included on the Response Report by Respondent. You can choose from all questions, regardless of whether they are graded or tabulated, by adjusting the report properties. This report is useful for displaying data entry or image clip Image regions so that you can see how your respondents responded to write-in questions. The Response Report by Respondent will be grouped by respondent (e.g., you will see the respondent listed first and then that respondent's responses for all selected questions). You may choose whether to include an Analysis Respondent ID with the responses in the report properties. If there are no Analysis Respondent ID regions in the form template, the responses will be sequentially numbered.

Student: Ben Nobel

|  | Benchmark (\%) | Grade | Total Score | Score (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall | 75.00 | B | 42.00 | 84.00 |  |  |
| Reading | 75.00 | A | 9.00 | 90.00 |  |  |
| Grammar | 60.00 | A | 10.00 | 100.00 |  |  |
| Vocabulary | 70.00 | C | 23.00 | 76.67 |  |  |


| Responses |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Question | Response | Correct Answer | Question | Response | Correct Answer | Question | Response | Correct Answer |
| Question1 | A |  | Question12 | B |  | Question23 | C |  |
| Question2 | B |  | Question13 | C |  | Question24 | D |  |
| Question3 | C |  | Question14 | D |  | Question25 | E |  |
| Question4 | D |  | Question15 | E |  | Question26 | B | A |
| Question5 | D | E | Question16 | A |  | Question27 | B |  |
| Question6 | A |  | Question17 | B |  | Question28 | C |  |
| Question7 | B |  | Question18 | C |  | Question29 | D |  |
| Question8 | C |  | Question19 | D |  | Question30 | E |  |
| Question9 | D |  | Question20 | E |  | Subjective | 14 | 20 |
| Question10 | E |  | Question21 | A |  |  |  |  |
| Question11 | A |  | Question22 | B |  |  |  |  |



The Student Grade Report provides a detailed grade report for each student included in the grade operation. You may print these reports and give them to your students. The report provides a table of the basic statistics and can provide images of the students' tests. Incorrect responses are highlighted in yellow. If a benchmark score was defined using the Grade Wizard, you will see a chart depicting the student's score along with the benchmark. If learning objectives were defined using the Grade Wizard, you will see scores for each learning objective in addition to the overall test.

You can customize the report header to include the following class information on each student report: highest score, lowest score, median score, mean score, number of tests graded.

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