**A★Star® Audit Review**

**Example Audit Report 4.08**
Grade 5 Reading

This Example Audit Report lists the A*Star review results for 19 classroom groups at 5 schools. The results presented here are for real classrooms at real schools. The class and school identification numbers have, however, been assigned by A*Star and bear no relationship to the original. The schools represent schools with and without problems in test administration and schools with a broad range and narrow range of class average scores.

The Audit results for the different classes offer the opportunity to review the nature of the statistical measures provided by the A*Star method and to compare their relationship to other classrooms in the same and in other schools. Thumbnail descriptions of the measures are provided at the bottom of the listing and arrows are used to highlight exceptional values.

The separate document, *A Description of the A*Star Audit: Example Report 4.08 and Class Response Pattern Profiles*, provides a more complete description of the nature of misadministration in classroom testing, the measures used in the A*Star Audit, and a graphical analysis (Response Pattern Profile) for each of the classrooms listed in this Example Report.

**Grade 5 Reading**

# A*Star Audit of Classroom Test Administrasition

A*Star Audit Example Report 4.08

Classroom Response Pattern Parameters

| School | Class | A*Star Review Audit Score | Subject Group | Observed Scores Number Tested | Scale Score Mean | Scale Score SD | Raw Score Mean | Raw Score SD | Early - Late Test Performance Forecast total score based on First 60% | Last 40% | SPD | P =>\|Obs\| | P-value Correlation Class with its skill level norm Adjusted | P =< Obs. | Unadj. | Exceptional Item Performance Frequency z => \|1.6\| | z => \|2.0\| | P => Obs. | Isolated Range of Except. Performance Iso. R | P => Obs. | Performance over the Last 5 Items Percent Correct Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **All Classroom Norms** Mean | | | | 24.4 | 657.3 | 22.8 | 29.1 | 5.8 | 29.1 | 29.1 | 0.0 | | 0.892 | | 0.894 | 5.9 | 1.9 | | 16.5 | | | | |
| SD | | | | 4.6 | 18.8 | 7.2 | 5.0 | 1.2 | 4.9 | 4.9 | 1.7 | | 0.038 | | 0.037 | 2.8 | 1.7 | | 4.6 | | | | |

**School 102 with 3 classes, each with good agreement with the norm**

| School | Class | Audit Score | Number Tested | Scale Mean | Scale SD | Raw Mean | Raw SD | First 60% | Last 40% | SPD | P =>\|Obs\| | Adjusted | P =< Obs. | Unadj. | z => \|1.6\| | z => \|2.0\| | P => Obs. | Iso. R | P => Obs. | Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 102 | 501 | | 21 | 657.8 | 15.7 | 29.2 | 5.0 | 30.8 | 27.5 | 3.3 | 2.8% | 0.930 | 83.9% | 0.930 | 7 | 1 | 69.9% | 17.9 | 37.9% | 37% | -1.1 | 99% |
| 102 | 502 | | 21 | 669.8 | 25.9 | 32.3 | 6.6 | 32.6 | 31.8 | 0.8 | 33.0% | 0.920 | 76.7% | 0.920 | 5 | 2 | 47.7% | 12.5 | 80.8% | 50% | -0.1 | 99% |
| 102 | 503 | | 24 | 658.0 | 24.1 | 29.0 | 7.2 | 30.0 | 28.0 | 2.0 | 13.0% | 0.900 | 58.0% | 0.900 | 4 | 1 | 69.9% | 17.6 | 40.4% | 43% | 0.1 | 98% |

**School 109 with 3 classes, each with modest to significant deviations from the norm - Extended time?**  
*(High performance at the end of the test)*

| School | Class | Audit Score | Number Tested | Scale Mean | Scale SD | Raw Mean | Raw SD | First 60% | Last 40% | SPD | P =>\|Obs\| | Adjusted | P =< Obs. | Unadj. | z => \|1.6\| | z => \|2.0\| | P => Obs. | Iso. R | P => Obs. | Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 109 | 501 | 1 | 23 | 656.7 | 21.6 | 28.6 | 6.1 | 27.3 | 30.0 | -2.7 | 6.2% | 0.870 | 27.9% | 0.880 | 5 | 0 | 86.5% | 20.7 | 17.6% | 48% | 1.4 | 96% |
| 109 | 502 | 2 | 23 | 656.4 | 29.6 | 28.3 | 7.8 | 27.4 | 29.3 | -1.9 | 13.8% | 0.740 | 0.0% | 0.790 | 8 | 3 | 26.2% | 30.4 | 0.1% | 62% | 2.8 | 90% |
| 109 | 503 | 1 | 24 | 666.2 | 23.7 | 31.4 | 6.8 | 29.7 | 33.1 | -3.4 | 2.4% | 0.860 | 19.8% | 0.860 | 7 | 5 | 3.6% | 27.9 | 0.6% | 53% | 0.9 | 98% |

*(Low correlation with the norm — High performance over a test section.)*

**School 337 with 3 classes, 1 with improper influence**

| School | Class | Audit Score | Number Tested | Scale Mean | Scale SD | Raw Mean | Raw SD | First 60% | Last 40% | SPD | P =>\|Obs\| | Adjusted | P =< Obs. | Unadj. | z => \|1.6\| | z => \|2.0\| | P => Obs. | Iso. R | P => Obs. | Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 337 | 501 | 3 | 23 | 665.5 | 14.9 | 31.7 | 4.7 | 30.8 | 32.4 | -1.6 | 17.3% | 0.570 | 0.0% | 0.580 | 25 | 15 | 0.0% | 51.5 | 0.0% | 25% | -2.5 | 100% |
| 337 | 502 | | 28 | 683.7 | 23.0 | 36.0 | 5.3 | 36.5 | 35.0 | 1.5 | 18.6% | 0.890 | 47.6% | 0.890 | 3 | 3 | 26.2% | 10.7 | 89.4% | 59% | -0.1 | 100% |
| 337 | 503 | | 27 | 651.6 | 17.9 | 27.3 | 5.7 | 27.7 | 27.0 | 0.6 | 36.1% | 0.930 | 83.9% | 0.940 | 2 | 0 | 86.5% | 15.9 | 54.7% | 38% | 0.1 | 96% |

*(Large number of items with exceptional performance)*

**School 435 with 5 classes, each with good agreement with the norm, and wide a range of class average scores**

| School | Class | Audit Score | Number Tested | Scale Mean | Scale SD | Raw Mean | Raw SD | First 60% | Last 40% | SPD | P =>\|Obs\| | Adjusted | P =< Obs. | Unadj. | z => \|1.6\| | z => \|2.0\| | P => Obs. | Iso. R | P => Obs. | Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 435 | 501 | | 32 | 675.8 | 17.8 | 34.5 | 5.2 | 33.9 | 34.9 | -1.0 | 28.8% | 0.890 | 47.6% | 0.880 | 1 | 1 | 69.9% | 14.4 | 67.1% | 64% | 0.6 | 100% |
| 435 | 502 | | 25 | 641.5 | 17.5 | 24.1 | 5.4 | 24.6 | 23.9 | 0.7 | 35.3% | 0.940 | 89.5% | 0.940 | 2 | 1 | 69.9% | 12.9 | 78.0% | 28% | -0.7 | 98% |
| 435 | 503 | | 22 | 641.2 | 26.6 | 24.5 | 7.1 | 24.7 | 24.7 | 0.0 | 49.3% | 0.920 | 76.7% | 0.920 | 4 | 1 | 69.9% | 15.1 | 61.6% | 34% | 0.2 | 100% |
| 435 | 504 | | 29 | 633.1 | 34.4 | 22.9 | 5.6 | 23.3 | 22.8 | 0.4 | 40.7% | 0.890 | 47.6% | 0.890 | 6 | 2 | 47.7% | 10.4 | 90.7% | 31% | -0.1 | 100% |
| 435 | 505 | | 31 | 662.5 | 21.1 | 30.7 | 6.2 | 30.9 | 30.3 | 0.6 | 35.6% | 0.930 | 83.9% | 0.930 | 2 | 0 | 86.5% | 12.1 | 83.1% | 47% | 0.1 | 100% |

*(High performance over a test section.)*

**School 436 with 5 classes - 2 with elevated irregularity; 1 deliberate, 1 confused**

| School | Class | Audit Score | Number Tested | Scale Mean | Scale SD | Raw Mean | Raw SD | First 60% | Last 40% | SPD | P =>\|Obs\| | Adjusted | P =< Obs. | Unadj. | z => \|1.6\| | z => \|2.0\| | P => Obs. | Iso. R | P => Obs. | Avg. Pval. | z Score | Pct. Attp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 436 | 501 | | 30 | 662.0 | 22.7 | 30.7 | 6.2 | 30.9 | 30.4 | 0.5 | 39.4% | 0.920 | 76.7% | 0.910 | 5 | 0 | 86.5% | 14.9 | 63.4% | 49% | 0.4 | 100% |
| 436 | 502 | 3 | 31 | 656.1 | 9.1 | 28.7 | 3.0 | 27.6 | 29.8 | -2.2 | 10.2% | 0.540 | 0.0% | 0.510 | 30 | 28 | 0.0% | 70.6 | 0.0% | 7% | -4.0 | 95% |
| 436 | 503 | | 23 | 640.7 | 26.1 | 24.4 | 7.5 | 24.6 | 24.5 | 0.2 | 46.3% | 0.880 | 37.3% | 0.880 | 7 | 2 | 47.7% | 15.2 | 60.5% | 30% | -0.6 | 100% |
| 436 | 505 | 1 | 17 | 628.4 | 15.8 | 20.4 | 4.3 | 21.4 | 19.8 | 1.6 | 18.4% | 0.870 | 27.9% | 0.890 | 8 | 2 | 47.7% | 23.1 | 7.5% | 27% | -0.8 | 78% |
| 436 | 506 | 3 | 19 | 601.7 | 27.2 | 15.6 | 3.6 | 12.8 | 19.5 | -6.8 | 0.0% | 0.570 | 0.0% | 0.550 | 6 | 0 | 86.5% | 21.3 | 14.6% | 37% | 1.1 | 100% |

Annotations (connected by arrows): Severe irregularity · Unexpectedly high performance at the end of the test · Exceptionally low correlation with the norm · Limited encouragement to guess

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**Thumbnail Description of response pattern values.**

| A*Star Audit Score | | Early - Late Test Performance | P-value Correlation | Exceptional Item Performance | Isolated Range | Performance over the Last 5 Items |
|---|---|---|---|---|---|---|
| Pattern Irregularity | | | | | | |

A*Star Audit Score / Pattern Irregularity  
1 = Modest  
2 = Significant  
3 = Severe

Frequency in the total file.

| Audit Score | Pct. |
|---|---|
| 1 | 12.60% |
| 2 | 2.30% |
| 3 | 0.60% |

Extreme values always indicate a contradiction between the performance of the individual class, the performance of other classes at the same measured achievement level, and the variation in the difficulty of the test items.

The interpretation of the response pattern values requires a comparison of several measurements to suggest the underlying cause. The pattern of attempts and random guessing among students in low performing classrooms, combined with the teacher efforts to achieve test completion, often result in irregular patterns that do not indicate improper influence, but do indicate loss of measurement.

**Early - Late Test Performance:** The first two values are the forecast total score based on the first 60% and the last 40% of the test content. The third value is the difference.

Higher relative early performance is likely a result of variations in guessing, lowering late performance.

Higher late performance may be due to problems in the start of the test or to extended time or to assistance to lower performing test-takers

**P-value Correlation:** Both Adjusted and Unadjusted correlations with the class skill level norm are presented. Adjusted values are more sensitive, yet the difference between them is most often due to guessing. Correlations below .750 are rare and always indicate a significant problem in test administration. Values from .750 to .850 vary in interpretation.

**Exceptional Item Performance:** A count of the number of test items that are 1.6 or 2.0 SD from the norm. High numbers indicate a problem in the test administration. Low numbers together with a low correlation indicate confusion in the test administration.

**Isolated Range:** This value reports the highest level of difference between the class and the norm over a short section of the test. A high value indicates the potential assistance with a test section - often the last section of the test.

**Performance over the Last 5 Items:** The first value is the average p-value over the last 5 test items. The second value is the z score (SD units) difference between the class average and the class skill level norm average. The third value is the percentage of the last 5 items attempted by the class ( No. Attps / ( n x 5 ) ). A combination of high z score and higher percent attempts suggests extended time or improper assistance.