**Delaware School Climate Surveys Interpretation Worksheet**

**School Climate, Bullying, Engagement**

**HOME Version**

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| **Report Interpretation Key** | | | | |
| Table Code by Scale |  | Table Code by Score Type |  |  |
| School Climate Scale – Table 1 |  | Standard Scores – Table a |  | **Bold** – Total Scores |
| Bullying Scale – Table 3 |  | Average Scores – Table b |  | Green – Favorable |
| Engagement Scale – Table 4 |  | Percentage Response Scores – Table c |  | Red – Unfavorable |

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|  | **Favorable (GREEN)** | | **Unfavorable (RED)** | |
| **Scale** | **Standard Score** | **Average Score** | **Standard Score** | **Average Score** |
| School Climate & Engagement Scales | 110 and above | 3.4 and above | 89 and below | 2.5 and below |
| Bullying Scale | N/A | N/A | 110 and above | 3.0 and above |

Standard Score Distribution Average Item Score Calculation

**Determine: *Do your respondents’ scores reflect positive or negative perceptions of school climate, regardless of how your school compares to other schools?***

**Determine: *How does your school compare to other like schools?***



SS = 110

SS = 89

**Considerable Sizeable**

**Concerns** **Strengths**

Average scores are calculated by finding the average of all responses for each item.

Example:

Responses to Item 5 = 2,3,3,3,4,2

2+3+3+3+4+2= 17

17/6= 2.82

Average Item Score = 2.83

**Determine:** **How does one know if differences in scores are significant?**  See pg. 13-14.

**HOME DATA REPORT**

**School Climate Scale – Table 1**

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**Response Scale:** 1=Disagree A Lot 2=Disagree 3=Agree 4=Agree A Lot

**AVERAGE ITEM SCORE (AIS): TRENDS REVIEW**

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| **Graph** | **Use to…** | **Ask yourself…** |
| **1b**  School Climate  Average Score  Cross-Year Review | Note school’s average item scores per subscale for this school year and 2 previous years (if data are available). | By subscale and overall, have our average item scores per subscale increased, decreased, or maintained over the years? |

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| **Our Increased Areas** | **Our Decreased Areas** | **Our Maintained Areas** |
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| **Additional Notes** | | |

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| **Table** | **Use to…** | **Ask yourself…** |
| **1b**  School Climate  Average Item Scores | Note the sizable strengths and considerable concerns for YOUR school. A score of 3 or above means that the respondents on average agree or agree a lot. Remember, lower scores are preferred for Bullying School-wide. | What areas are strengths for our school? What areas do we need to address? Are there differences within or between race groups? Do families view peer relationships positively? Do families feel rules are clear and fair? |

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| **School Climate Scale Totals** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| **School Climate Scale by Race** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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**PERCENT RESPONSE SCORE: TRENDS REVIEW**

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| **Table** | **Use to…** | **Ask yourself…** |
| **1c**  School Climate  Percentage Response Scores | Note individual items that caused scores to be low or high. By looking at this data, you can find out which items families feel strongly about and direct efforts accordingly. | Were there any individual items from a subscale that had a particularly high or low response percentage? How did this impact our overall score? What can we do to address these focus areas? |

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| **Subscales** | **Our Strengths**  (Item Numbers) | **Concerns to Address**  (Item Numbers) |
| Teacher-Student Relations |  |  |
| Student-Student Relations |  |  |
| Clarity of Expectations |  |  |
| Fairness of Rules |  |  |
| School Safety |  |  |
| Teacher-Home Communications |  |  |
| Satisfaction with School |  |  |
| **Additional Notes** |  |  |

**STANDARD SCORE (SS): TRENDS REVIEW**

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| **Table** | **Use to…** | **Ask yourself…** |
| 1a  School Climate  Standard Scores | Compare your school to other schools serving the same grade level (e.g. ES, MS, HS). A score of 100 is average, so in general, scores above 100 illustrate your school has higher scores than other same level schools. | What are our strengths and weaknesses compared to other schools that serve similar age students? Are there differences between and within race groups that we need to explore? |

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| **School Climate Scale Totals** (SS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| **School Climate by Race** (SS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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**HOME DATA REPORT**

**Bullying Scale\* – Table 3**

\*A high score on this subscale is negative because items are negatively worded

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**Response Scale:** 1= Never 2=Less than once a month 3=Once or twice a month

4=Once a week 5= Several times a week 6= Every day

**AVERAGE ITEM SCORE (AIS): TRENDS REVIEW**

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| **Graph** | **Use to…** | **Ask yourself…** |
| 3b  Bullying  Average Scores Cross-Year Review | Note school’s average item scores per subscale for this school year and 2 previous years (if data are available). | By subscale and overall, have our average item scores per subscale increased, decreased, or maintained over the years? |

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| **Our Increased Areas** | **Our Decreased Areas** | **Our Maintained Areas** |
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| **Additional Notes** | | |

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| **Table** | **Use to…** | **Ask yourself…** |
| 3b  Bullying  Average Item Scores | Note the sizable strengths and considerable concerns for YOUR school. Explore families’ perceptions of the frequency of what types of bullying occur in the school. Keep in mind, lower scores are better. | What areas are strengths for our school? What areas do we need to address? Are there differences to explore within and between races? Are there differences in what types of bullying families perceive as a problem in your school? Do families see physical bullying as occurring more often than verbal? |

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| **Bullying Scale Totals** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| **Bullying by Race** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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**PERCENT RESPONSE SCORE: TRENDS REVIEW**

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| **Table** | **Use to…** | **Ask yourself…** |
| 3c  Bullying  Percentage Response Scores | Review families’ responses to the individual questions. Note individual items that caused subscale scores to be low or high. By looking at this data, you can identify items families note as occurring more or less frequently. | Were there any individual items from a subscale that had particularly high or low response percentage? How did this impact our overall score? What can we do to address these focus areas? |

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| **Subscales** | **Our Strengths**  (Item Numbers) | **Concerns to Address**  (Item Numbers) |
| Verbal Bullying |  |  |
| Physical Bullying |  |  |
| Social/Relational Bullying |  |  |
| **Additional Notes** | | |

**STANDARD SCORE (SS): TRENDS REVIEW**

|  |  |  |
| --- | --- | --- |
| **Table** | **Use to…** | **Ask yourself…** |
| 3a  Bullying  Standard Scores | Compare your school to other schools serving the same grade level (e.g., ES, MS, HS). A score of 100 is average, so in general, scores above 100 illustrate your school has higher scores than other same level schools. Use these scores to determine what kinds of bullying families identify as a problem in relation to similar schools. Remember that low scores are preferred. | What are our strengths and weaknesses compared to other schools that serve similar age students? Are there differences between and within race groups that we need to explore? Are some standard scores higher? Why? |

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| **Bullying Scale Totals** (SS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| **Bullying by Race** (SS) | |
| **Our Strengths** | **Concerns to Address** |
|  |  |
| **Additional Notes** | |
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**HOME DATA REPORT**

**Engagement Scale – Table 4**

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**Response Scale:** 1=Disagree A Lot 2=Disagree 3=Agree 4=Agree A Lot

**AVERAGE ITEM SCORE (AIS): TRENDS REVIEW**

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| **Graph** | **Use to…** | **Ask yourself…** |
| 4b  Engagement  Average Scores Cross-Year Review | Note your school’s average item scores per subscale from this school year and the previous 2 years (if data are available). | By subscale and overall, have our average item scores per subscale increased, decreased, or maintained over the years? |

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| **Our Increased Areas** | **Our Decreased Areas** | **Our Maintained Areas** |
|  |  |  |
| **Additional Notes** | | |

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| **Table** | **Use to…** | **Ask yourself…** |
| 4b  Engagement  Average Item Scores | Note the sizable strengths and considerable concerns for YOUR school. A score of 3 or above means that the respondents on average agree or agree a lot. | What areas are strengths for our school? What areas do we need to address? Are there differences within or between race groups? Do our families report more cognitive, behavioral, or emotional engagement? |

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| **Engagement Scale Totals** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| **Engagement by Race** (AIS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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**PERCENT RESPONSE SCORE: TRENDS REVIEW**

|  |  |  |
| --- | --- | --- |
| **Table** | **Use to…** | **Ask yourself…** |
| 4c  Engagement  Percentage Response Scores | Note individual items that caused subscale scores to be low or high. By looking at this data, you can find out which items families feel strongly about and direct efforts accordingly. | Were there any individual items from a subscale that had particularly high or low response percentage? How did this impact our overall score? What can we do to address these focus areas? |

|  |  |  |
| --- | --- | --- |
| **Subscales** | **Our Strengths**  (Item Numbers) | **Concerns to Address**  (Item Numbers) |
| Cognitive Engagement |  |  |
| Behavioral Engagement |  |  |
| Emotional Engagement |  |  |
| **Additional Notes** | | |

**STANDARD SCORE (SS): TRENDS REVIEW**

|  |  |  |
| --- | --- | --- |
| **Table** | **Use to…** | **Ask yourself…** |
| 4a  Engagement Standard Scores | Compare your school to other schools serving the same grade level (e.g. ES, MS, HS). A score of 100 is average, so in general, scores above 100 illustrate your school has higher scores than other same level schools. | What are our strengths and weaknesses compared to other schools that serve similar age students? Are there differences between and within races that we need to explore? |

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| **Engagement Scale Totals** (SS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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| --- | --- |
| **Engagement by Race** (SS) | |
| **Our Strengths** | **Concerns to Address** |
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| **Additional Notes** | |
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**INTERPRETING SIGNIFICANT DIFFERENCES IN SCORES**

Schools may want to know if differences in scores (in subscales or from year to year) are “significant.” When thinking about significant differences, it is important to consider both **practical significance** and **statistical significance**.

* Practical significance: is the difference meaningful for our school?
* Statistical significance: 95% chance that the difference in scores is not due to chance
* \*Statistical significance **does not** imply practical importance
  + A difference can be statistically significant but of little practical value

Schools should have little concern about significant differences when all of their scores are fairly high (e.g., above 3.3)

Schools should be less concerned about a difference from year to year than about *general pattern* in scores over multiple years

**How to determine significant differences**

The table below helps schools determine if the difference in two **average item scores**—which are the scores ranging from 1.0 to 4.0 and NOT STANDARD SCORES—are likely to be statistically significant.

Note that the table shows *approximate* size differences needed for statistical significance. They are approximate because exact scores would depend on the exact size of the samples and on the standard deviation for each score. Because both sample sizes and standard deviations vary greater when comparing scores across the hundreds of possible comparisons, only approximate values are given.

1. Look at the number of respondents for the two given scores (i.e., the sample size, which we call N). If the number is different, use the lower N or an average of the two (e.g., 120 students completed the Teacher-Student subscale and 80 completed the Student-Student subscale, use 80 or 100, with 80 being more conservative).
2. Find the number in Column 1 that is closest to your N.
3. Find the number in Column 2 (Approximate Difference Needed) that aligns with your N. This difference is the minimal difference needed for statistical significance. For example, if you have 50 students, you need a difference of .20 or larger to conclude that there is a 95% chance that the difference is not an error and is statistically significant.

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| Approximate Difference in **Average Item Scores** (1.0-4.0) Needed to be  Statistically Significant | |
| Size of Sample (N) | Approximate Difference Needed |
| 15 | .38 or larger |
| 20 | .33 or larger |
| 30 | .29 or larger |
| 40 | .26 or larger |
| 50 | .20 or larger |
| 60 | .19 or larger |
| 70 | .17 or larger |
| 80 | .16 or larger |
| 90 | .15 or larger |
| 100 | .14 or larger |
| 120 | .13 or larger |
| 140 | .12 or larger |
| 160 | .11 or larger |
| 200 | .10 or larger |
| 240 | .09 or larger |
| 310 | .08 or larger |
| 400 | .07 or larger |
| 540 | .06 or larger |
| 780 | .05 or larger |

*Note*. Statistical significance is at the .05 level (two-tailed t-test) and based on a standard deviation of .50 for each score. The statistical significance of differences would vary depending of the actual standard deviations.

**Additional helpful notes to consider**:

* Observe that as the size of the sample increases, the size of the difference needed for statistical significance decreases. Thus, be very cautious in concluding that differences are important when looking at small samples.
* Keep in mind that the actual score may be more meaningful than a statistically significant difference. For example, 2.7 may be significantly greater than 2.3, but both scores are low compared to other schools. Likewise, 3.8 may be significantly greater than 3.5 but both are very high and likely indicate no need for improvement.
* Be aware that the size of the differences needed for statistical significance are estimates.
* Be aware that practical significance is NOT the same as statistical significance. A good example is finding a difference of only .05 to be statistically significant in a sample of 800 students. Is that difference truly meaningful or of practical significance?