



SAIS Value Narrative Survey

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Scoring and Reliability Analysis and Norming Groups

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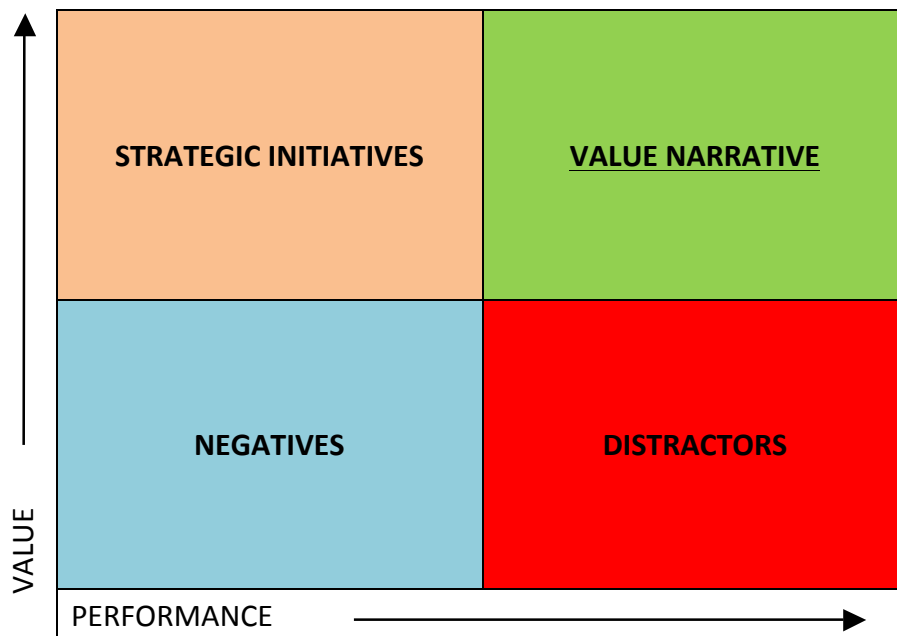
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Introduction

The following technical document was prepared based on the pilot group of respondents to the SAIS Value Narrative Survey created and deployed during the Fall of 2012, the Spring of 2013, and the Fall of 2013. Updates and revisions were then incorporated from data gathered in 2014. The updated data included a new section regarding skill areas added in 2014. These items were responded to by approximately one-half of the total survey population to date. Multiple schools participated in the survey from states across the SAIS region. The participating schools are considered to be representative of the vast network of unique institutions that count themselves as members of SAIS. K&M Consulting performed the reliability testing and produced the original draft and current updates for this technical manual.

The SAIS Value Narrative Survey (SAIS Survey) was developed in response to an expressed need from independent school personnel to determine which areas needed improvement relative to the areas stakeholders found to be most important. It does little good for an administrator to determine and develop an improvement plan if that plan focuses on improving areas in which stakeholders place little value. The SAIS Survey provides an effective tool for school planning groups to use to glean information about what stakeholders want in the school versus where the school needs to make adjustments. The development of the SAIS Survey addressed this need in the context of the model in Figure 1 showing the school's value narrative being those areas in which the school excels and are valued highly by the school's constituency.

Figure 1: SAIS Value Narrative Model



- **Value Narrative:** Those areas valued most highly by stakeholders and administered at the highest level by the school. Continue focus.
- **Strategic Initiatives:** Those areas valued highly by stakeholders but needing improvement by the school. Focus improvement efforts.

- **Distractors:** Those areas in which the school excels but in which stakeholders place little value. These may be distracting the school from meeting the real needs of stakeholders.
- **Negatives:** Those areas in which the school performs poorly and in which stakeholders place little value. These may provide options for redirecting resources.

The SAIS Survey allows school planning groups and administrators to examine the educational aspects of the school relative to where the focus should be placed. It provides data to inform decisions regarding resource allocation and professional development by showing what is being done well and what is valued most highly by the school's constituency. Not only are needs identified, but needs that are valued most highly are better delineated allowing for immediate attention and strategic planning.

Development of Survey Items

Extensive review of current school improvement literature and focus groups consisting of representatives from various stakeholder groups provided the initial list of dimensions and scholastic areas to be included in the survey. This initial list was further refined by reviewing representative schools' strategic plans and mission statements to determine those areas common to all independent schools. Text frequency analysis was employed to help better identify those areas upon which most independent schools place their focus. The final set of items was reviewed by a panel of experts comprised of educational and assessment professionals to determine face and content validity.

Respondent Groups

From 2013 through 2014, the SAIS Value Narrative Survey had been completed by 30562 members of the five independent school stakeholder groups representing those typically solicited for input in the independent school planning process. To provide relative comparison capability and indexing, norms were updated using this population. Table 1 shows the distribution of respondent groups within the total survey population to date.

Table 1: Distribution of Respondent Groups

Respondent Group	N	%
Parent	13472	44%
Student	7529	25%
Faculty	3200	11%
Trustee	594	2%
Alumni	5767	19%
Total	30562	100.0

Appendix A shows the results of an analysis of variance conducted to determine significant differences between these respondent groups. The purpose for this analysis was to provide school personnel with some idea of where differences in value and performance perceptions exist in their various constituency groups. Survey users should use the analyses in the appendices as guides for looking at their own school data.

Different types of demographic information were deemed relevant to each respondent group. Tables 2 through 6 provide summaries of selected demographic information for each of the respondent groups.

Table 2: Requested Demographic Distribution for the Parent Survey

Requested Demographic		N	%
Parents Respondents		13472	
Number Enrolled (Boys)*	0	5095	
	1	4157	
	2	3468	
	3	659	
	4+	93	
Number Enrolled (Girls)*	0	4718	
	1	4524	
	2	3517	
	3	630	
	4+	83	
Enrolled in Pre-school/Early Childhood/JK/SK**		1776	
Enrolled in Lower Grades**		4857	
Enrolled in Middle Grades**		4586	
Enrolled in Upper Grades**		6094	
Grade of Oldest Child	Pre-Sch/Early CH/JK/SK	1327	10%
	Lower Grades	3586	27%
	Middle Grades	3038	23%
	Upper Grades	5133	39%
Years with Children Enrolled	1 year	2577	20%
	2 – 4 years	4746	36%
	5 – 8 years	3119	24%
	9+ years	2703	21%
Boys Enrolled in Other Schools*	1	4961	
	2	1105	
	3	128	
	4+	25	
Girls Enrolled in Other Schools*	1	4316	
	2	1010	
	3	114	
	4+	256	
Other Family Member is Alumnus	Yes	3868	29%
	No	9604	71%

*No % shown due to lack of response on zero (0) choice

**Multiple responses allowed

Table 3: Requested Demographic Distribution for the Faculty Survey

Requested Demographic		N	%
Faculty Respondents		3172	
Tenure (Yrs)	1 st year	371	12%
	2 – 4 years	824	26%
	5 – 9 years	648	20%
	6 – 15 years	680	21%
	15+ years	649	20%
Division	Pre-Sch/Early CH/JK/SK	316	11%
	Lower Grades	781	28%
	Middle Grades	623	23%
	Upper Grades	680	25%
	Multiple Assignment	360	13%
Administrator	Yes	365	13%
	No	2395	87%
Alumni	Yes	257	8%
	No	2910	92%
Have Children Currently Enrolled	Yes	1738	55%
	No	1435	45%

Table 4: Requested Demographic Distribution for the Student Survey

Requested Demographic		N	%
Students Responding		7498	
Years In School	1 st year	939	12%
	2 – 4 years	2530	34%
	5 – 9 years	2019	27%
	9+ years	2006	27%
Current Grade	6 th – 8 th grade	2730	36%
	9 th – 10 th grade	2503	33%
	11 th – 12 th grade	2259	31%
Other Family Member(s) Enrolled	Yes	3985	53%
	No	3513	47%
Family Member(s) Graduates	Yes	2345	31%
	No	5144	69%
Family Member(s) Employed at School	Yes	809	11%
	No	6672	89%

Table 5: Requested Demographic Distribution for the Alumni Survey

Requested Demographic		N	%
Alumni Responding		5767	
How long ago did you graduate?	1 – 4 years	867	15%
	5 – 10 years	1018	18%
	11 – 20 years	1436	25%
	21 – 30 years	1054	18%
	31 - 40 years	739	13%
	41 - 50 years	253	5%
	51+ years	324	6%
College Focus	Humanities	1970	37%
	Math/Sci/Eng	1400	26%
	Business	1249	23%
	Communications	297	5%
	Technology	93	2%
	Other	370	7%
Highest Level of College	Currently enrolled	775	14%
	Did not attend	10	0.2%
	Some college (no degree)	234	4%
	Associate's Degree	66	1%
	Bachelor's Degree	2319	41%
	Master's Degree	1307	23%
	Professional Degree	653	12%
	Doctorate	273	5%
Current Activity/Status	Employed – full time	3383	60%
	Employed – part time	510	9%
	Student – full time	823	14%
	Student – part time	44	1%
	Not employed – seeking	176	3%
	Not employed - choice	728	13%

Table 6: Requested Demographic Distribution for the Trustee Survey

Requesting Demographic		N	%
Trustees Responding		594	
Board Tenure	1 st year	108	18%
	1 – 3 years	190	33%
	4 – 6 years	153	26%
	6+ years	133	23%
Officer	Yes	206	35%
	No	377	65%
Child In School	Yes	362	62%
	No	223	38%
Grade of Oldest Child	Pre-Sch/Early CH/JK/SK	9	2%
	Lower grade	100	26%
	Middle grade	94	25%
	Upper grade	178	47%
Years with Children In School	1 st year	7	2%
	2 – 4 years	47	13%
	5 – 8 years	132	37%
	9+ years	170	48%
Child In Other School	Yes	83	14%
	No	511	86%
Children Graduated from School	Yes	200	36%
	No	348	64%
Alumni	Yes	115	20%
	No	471	80%

Promoter Groupings

All respondents were asked one over-arching question at the end of the survey regarding their overall satisfaction with the school and its programs. Response choices ranged from 1 to 10 with 1 being low satisfaction and 10 being high. The results of this item were then extrapolated to identify respondents as members of one of three groups: Promoters, Passive Supporters, or Detractors. Appendix B shows the results of an analysis of variance conducted to determine significant differences between these groups. The distribution of respondent group membership is shown in Table 7.

Table 7: Distribution of Respondent Groups

Respondent Group	N	%
Promoter	23239	78%
Passive Supporter	5667	19%
Detractor	951	3%
Total	29857	

Scoring

Raw scores were calculated for each individual item and for each dimension by summing the responses within each factor (e.g. Academics, Arts, etc.) for each section of the survey. An overall raw score was also calculated for each section by summing responses across all survey items within the section. Mean scores were determined for each factor in order to determine significant differences (see appendices) between values and performance for each factor.

Congruence Coefficient

In order to examine the relative effectiveness of school factors in meeting the expressed expectations of stakeholders, a differential score was derived and standardized on a Stanine (Standard Nine) scale. In the context of this explanation, the Value portion of the survey is referred to as expectations. The Congruence Coefficient (CC) allows an observer to quickly determine the degree to which performance is meeting the expectations of constituents based upon differential survey results. Raw scores for each survey factor were calculated by summing the respondents' ratings of each item within the factor as well as the overall total on both the expectation and performance portions of the survey. The CC was calculated by dividing the total raw performance score (P) by the total raw expectation score (E) with the resulting output multiplied by 100 to create a percentage.

$$(P/E)*100=\text{Congruence Coefficient}$$

The CC ranges from 20.00 to 500. To make scores more understandable, the CC score distribution was standardized on a stanine scale having a mean of 5 and a standard deviation of 2. Upper limit CC scores corresponding to each stanine score are shown in Tables 8 and 9. Note that a stanine of 5, or the mean score, approximates exact congruence or 100% (raw CC score of 98-102) of constituents' expectations being met based upon survey responses.

Table 8: Distribution of Raw Scholastic Factor CC Scores by Stanine

Stanine	Acad	Faculty	Athletics	Arts	Clubs	Safety	Diversity	Tech	Skills	Over all
1	52	50	54	47	50	47	33	46	52	58
2	65	60	69	67	67	60	46	60	64	69
3	77	73	83	80	82	73	67	78	76	80
4	89	86	100	100	100	82	85	92	87	89
5	100	100	101	101	101	100	100	100	100	99
6	107	101	117	117	118	101	115	108	103	103
7	116	107	133	133	133	108	143	125	107	109
8	126	115	163	167	163	125	200	140	120	117
9	500	500	500	500	500	500	500	500	500	500

Table 9: Distribution of Adjusted* Raw Individual Item CC Scores by Stanine

ST	Academics							Faculty			Athletics		
	CC1	CC2	CC3	CC4	CC5	CC6	CC7	CC8	CC9	CC10	CC11	CC12	CC13
1	60	40	40	33	60	33	33	40	40	40	50	50	40
2	75	60	60	50	75	60	50	60	60	60	75	60	60
3	80	75	75	75	80	75	75	80	75	75	80	80	80
4	100	80	80	80	100	80	80	90	80	80	100	90	90
5	101	100	100	100	101	101	101	100	100	100	101	100	100
6	103	110	110	133	110	110	140	110	110	110	133	125	125
7	125	125	125	167	115	200	200	115	115	115	150	133	133
8	133	133	133	250	125	300	300	125	125	125	167	167	167
9	500	500	500	500	500	500	500	500	500	500	500	500	500

ST	Arts			Clubs			Safety		
	CC14	CC15	CC16	CC17	CC18	CC19	CC20	CC21	CC22
1	40	50	40	50	50	50	60	40	40
2	60	60	67	67	67	75	75	60	60
3	80	80	80	80	80	80	80	75	80
4	90	100	100	100	100	100	90	80	90
5	100	101	101	101	101	101	100	100	100
6	125	125	125	125	125	125	115	110	103
7	133	133	133	133	133	133	125	115	125
8	167	167	167	167	167	167	133	125	167
9	500	500	500	500	500	500	500	500	500

ST	Diversity			Technology			Skills					
	CC23	CC24	CC25	CC26	CC27	CC28	CC29	CC30	CC31	CC32	CC33	CC34
1	25	25	33	40	40	40	50	40	40	40	40	40
2	40	40	50	60	60	60	60	60	60	60	60	60
3	67	67	75	75	75	80	75	80	75	75	75	75
4	80	80	80	80	80	100	80	83	80	80	80	80
5	100	100	100	100	100	101	100	100	100	100	100	100
6	125	125	133	110	101	125	101	110	101	101	102	101
7	150	150	167	125	125	150	125	120	110	110	125	110
8	200	200	300	133	133	200	133	135	133	133	133	133
9	500	500	500	500	500	500	500	500	500	500	500	500

*Raw score distribution corrected for single item calculation

Figures 2 and 3 show the mean CC stanine for each factor as well as that of the overall survey for all respondents and respondent groups respectively. Note the reference line at 5.00 or the mean of the stanine scale. This is the point at which respondents' expectations are being met. Below 5.00 indicates expectations not being met and above 5.00 shows expectations being exceeded.

Figure 2: Mean Congruence Coefficient Stanines (All Respondents)

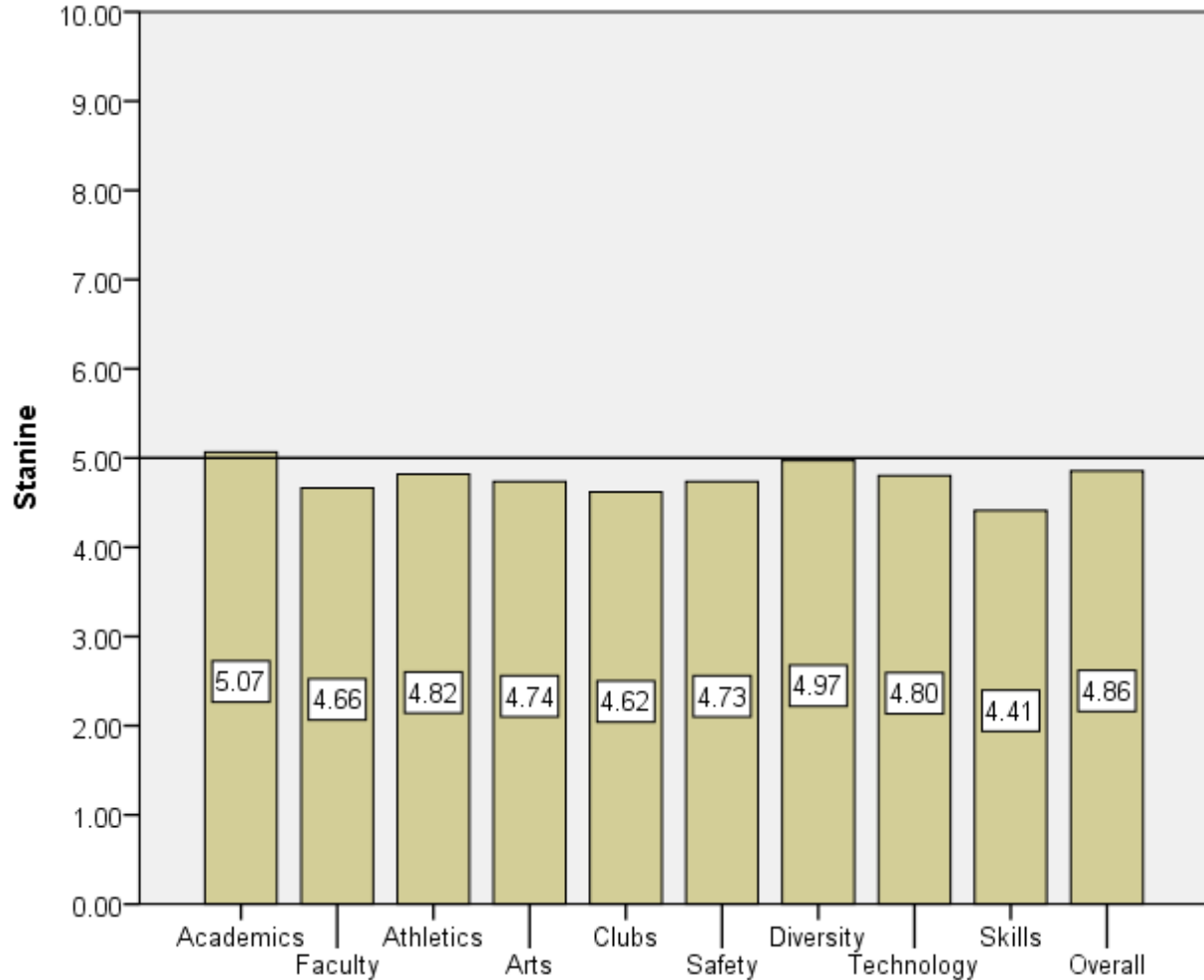
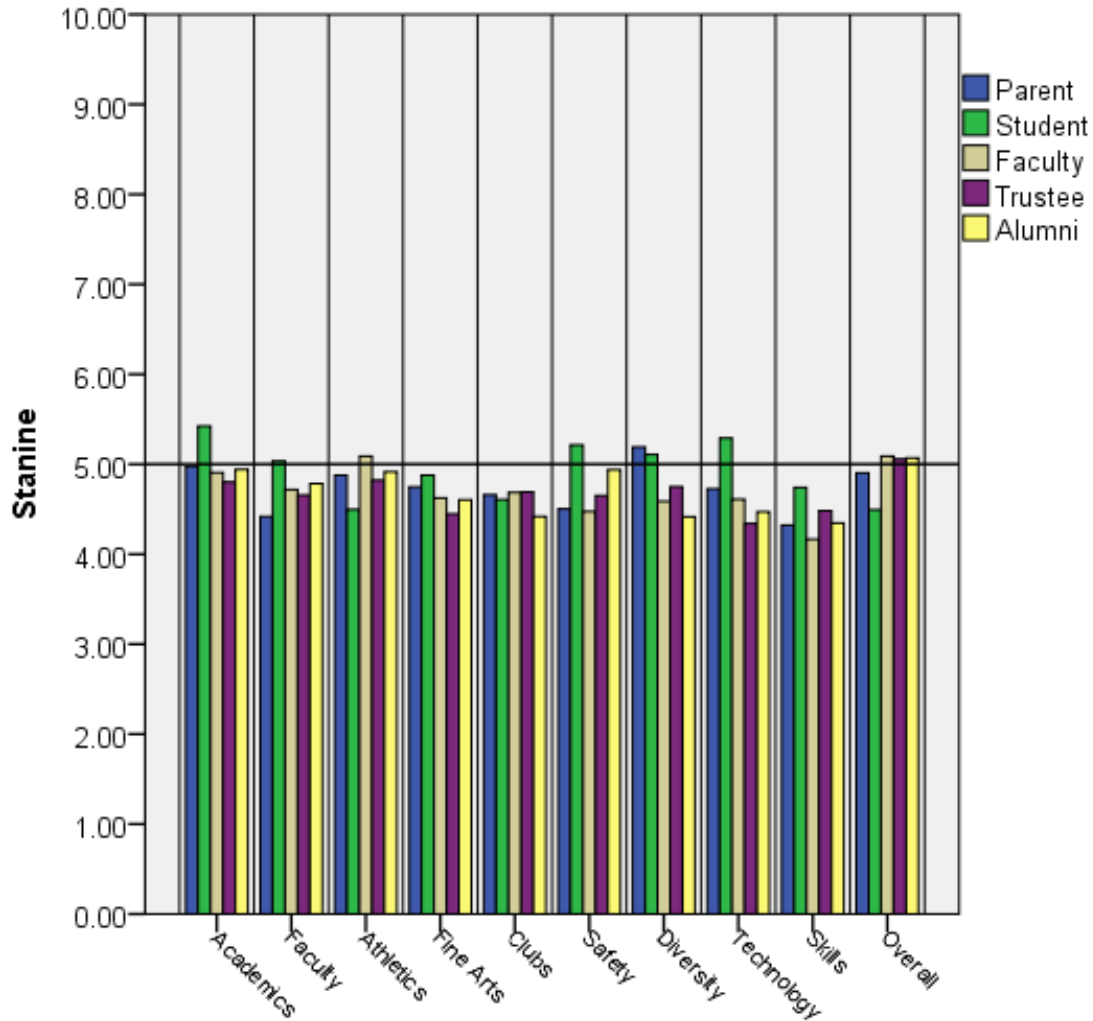


Figure 3: Mean Congruence Coefficient Stanines by Respondent Group



Reliability

No measure or survey can be of much value unless it measures what it purports to measure in a reliable or consistent manner. Reliability refers to the consistency of measurement over time and within an assessment based on various analyses.

Coefficient Alpha

Internal consistency is measured by the product of an analysis called Cronbach's alpha which indicates the consistency of responses to individual test questions. The alpha coefficient is a type of inter-item correlation and ranges from 0.00 to 1.00. The higher a set of items coefficient alpha, the more consistent the questions or survey items are for that scale or factor. A survey with a low coefficient alpha could produce uncharacteristic and meaningless scores in reference to what the survey claims to measure. A high coefficient alpha, however, indicates the survey items elicit consistent responses from the subjects in the sample, and thus, scores are more representative of the factor being measured.

Each section (Values and Performance) of the SAIS Survey was subjected to analysis to determine the alpha coefficient as a means of establishing reliability or consistency. An alpha coefficient of 0.70 or greater is considered to be a good indication of reliability, and each section of the SAIS Survey significantly exceeded this standard. The overall and respondent group alpha coefficients for each section of the survey are shown in Table 10.

Table 10: Cronbach's Alpha Reliability Coefficients

Respondent Group	Values Alpha Coefficient	Performance Alpha Coefficient
Overall	.89	.96
Parents	.90	.96
Trustees	.88	.95
Faculty	.91	.94
Students	.91	.95
Alumni	.90	.95

Split-Half Analysis

A second form of reliability analysis conducted on the SAIS Survey was a Split-Half reliability analysis, in which scores are generated for two halves of the set of items in each section of the survey. This is often useful when retesting a sample over time is impractical. Each half of the assessment is treated as a separate administration and the associated scores correlated just as two scores are correlated in the test-retest method. The Spearman-Brown Prophecy formula is used to correct for different test lengths.

Each of the 28-item SAIS Survey sections was divided into two equivalent halves of 14 odd and 14 even numbered items. A split-half reliability correlation coefficient was calculated to provide a measure of consistency with regard to the content of the survey items. That is, the split-half reliability coefficient would indicate how consistently the SAIS items measure the dimensions for which they were developed to measure, namely values and performance. As with the alpha coefficient, a split-half correlation of 0.70 or higher indicates good reliability. Table 11 shows that each section of the SAIS Survey exhibited split-half correlations well above this mark.

Table 11: Split-Half Reliability Coefficients

Survey Section		Alpha	Spearman-Brown*
Values	First Half	.844	.853
	Second Half	.879	
Performance	First Half	.930	.938
	Second Half	.942	

*Equal Length

Descriptive Statistics

While survey responses were gathered using a Likert-type (ordinal) scale and should generally not be subjected to parametric statistical analyses, Allen and Seaman (2007) indicate it is appropriate to treat this data as interval in nature when reliability and validity standards have been met and when the final analysis is based on an indexed score such as the Congruence Coefficient. The data shown here and in later analyses meet these requirements.

Table 12 shows the descriptive statistics for the raw item ratings in both the Value and Performance sections of the survey. This data has not been separated by respondent group.

Table 12: Descriptive Statistics for Raw Item Ratings (Value and Performance)

	N	Value		Performance	
		Mean	SD	Mean	SD
Curriculum & Programming / Academic Rigor	30562	4.37	.77	4.15	.83
Curriculum & Programming / Variety of Course Offerings	30562	4.19	.82	3.78	.98
Curriculum & Programming / Character Education	30562	4.32	.85	3.90	.99
Curriculum & Programming / Faith	30562	3.35	1.51	3.70	1.18
Curriculum & Programming / Prep (college/next level)	30562	4.49	.77	4.20	.87
Curriculum & Programming / Travel Opportunities	30562	3.04	1.18	3.35	1.16
Curriculum & Programming / Global Education	30562	3.46	1.12	3.32	1.15
Faculty / Care and Concern	30562	4.60	.67	4.17	.93
Faculty / Inspirational and motivating	30562	4.55	.72	3.97	1.00
Faculty / Subject Area Expertise	30562	4.57	.68	4.03	.93
Athletics / Variety of Offerings	30562	3.70	1.01	3.85	.96
Athletics / Quality of Offerings	30562	3.87	1.00	3.84	.99
Athletics / Opportunity to Participate	30562	3.98	.99	3.94	1.01
Fine Arts / Variety of Offerings	30562	3.74	.98	3.69	1.04
Fine Arts / Quality of Offerings	30562	3.88	.97	3.84	1.00
Fine Arts / Opportunity to Participate	30562	3.92	.99	3.92	.99
Clubs and other Co-curriculars / Variety of Offerings	30562	3.67	.94	3.65	1.02
Clubs and other Co-curriculars / Quality of Offerings	30562	3.77	.94	3.63	1.01
Clubs and other Co-curriculars / Opportunity to Participate	30562	3.89	.96	3.85	1.00
Safety / Physical	30562	4.63	.70	4.25	.86
Safety / Emotional	30562	4.56	.78	3.95	1.05
Safety / Spiritual	30562	4.21	1.12	3.96	1.05
Diversity / Socioeconomic	30562	3.52	1.16	3.15	1.21
Diversity / Cultural	30562	3.60	1.15	3.25	1.22
Diversity / Religious	30562	3.29	1.31	3.28	1.21
Technology / Availability	30562	4.31	.84	3.85	1.05
Technology / Current	30562	4.27	.87	3.84	1.19
Technology / School-provided	30562	3.86	1.09	3.84	1.27
Skills - Creativity*	16142	4.30	.77	3.87	.95
Skills - Ethics*	16142	4.58	.70	4.03	.93
Skills - Curiosity*	16142	4.37	.77	3.83	.98
Skills - Resilience*	16142	4.34	.77	3.82	.95
Skills - Teamwork*	16142	4.35	.81	3.89	.98
Skills - Time Management*	16142	4.44	.74	3.77	1.03

*Items added in 2014

Descriptive statistics for individual item Congruence Coefficients are shown in Table 13. These data have not been separated by respondent group.

Table 13: Descriptive Statistics for Individual Item Congruence Coefficients

	N	Mean	SD
Curriculum & Programming / Academic Rigor	30562	98.02	29.03
Curriculum & Programming / Variety of Course Offerings	30562	93.50	32.07
Curriculum & Programming / Character Education	30562	93.51	31.93
Curriculum & Programming / Faith	30562	120.05	75.49
Curriculum & Programming / Preparatory (college/next level)	30562	126.18	75.36
Curriculum & Programming / Travel Opportunities	30562	104.04	53.57
Curriculum & Programming / Global Education	30562	92.38	24.54
Faculty / Care and Concern	30562	89.13	26.87
Faculty / Inspirational and motivating	30562	90.26	26.17
Faculty / Subject Area Expertise	30562	112.55	51.91
Athletics / Variety of Offerings	30562	106.63	49.12
Athletics / Quality of Offerings	30562	106.54	50.30
Athletics / Opportunity to Participate	30562	105.30	47.28
Fine Arts / Variety of Offerings	30562	105.34	45.14
Fine Arts / Quality of Offerings	30562	106.76	47.19
Fine Arts / Opportunity to Participate	30562	105.02	42.19
Clubs and other Co-curriculars / Variety of Offerings	30562	101.47	39.64
Clubs and other Co-curriculars / Quality of Offerings	30562	104.20	40.14
Clubs and other Co-curriculars / Opportunity to Participate	30562	94.00	27.37
Safety / Physical	30562	89.50	32.29
Safety / Emotional	30562	99.03	48.72
Safety / Spiritual	30562	102.99	69.07
Diversity / Socioeconomic	30562	102.74	65.99
Diversity / Cultural	30562	116.28	79.01
Diversity / Religious	30562	93.01	36.01
Technology / Availability	30562	94.15	39.94
Technology / Current	30562	109.47	61.72
Technology / School-provided	30562	92.21	27.25
Skills - Creativity*	16142	89.76	25.18
Skills - Ethics*	16142	89.81	26.99
Skills - Curiosity*	16142	90.04	25.73
Skills - Resilience*	16142	92.07	30.31
Skills - Teamwork*	16142	86.93	27.21
Skills - Time Management*	16142	3.77	1.03

*Items added in 2014

Summary and Conclusions

The SAIS Value Narrative Survey provides a valid and reliable tool to help school improvement personnel identify areas their school excels in as well as areas where improvement is needed, all in the context of what constituents value most highly. The survey itself was developed using sound scientific methods and pilot data was subjected to analyses far above and beyond those typically required. The Congruence Coefficient provides a unique differential index allowing users to quickly and easily identify areas needing focus as well as areas where resources may be reallocated. All in all, the SAIS Value Narrative Survey is a sound and thoroughly reviewed instrument well worth the time investment of schools interested in developing the best educational environment possible for their stakeholders.

APPENDIX A: Significant Congruence Coefficient Differences Between Respondent Groups

Congruence Factor	Group A	Group B	Mean Difference (A-B)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Academic Rigor	Parent	Student	-11.43	0.41	0.00	-12.71	-10.15
		Faculty	2.69	0.56	0.00	0.95	4.43
		Alumni	-5.12	0.46	0.00	-6.53	-3.71
	Student	Faculty	14.12	0.61	0.00	12.25	15.99
		Trustee	13.00	1.24	0.00	9.18	16.82
		Alumni	6.31	0.51	0.00	4.74	7.88
	Faculty	Alumni	-7.81	0.64	0.00	-9.77	-5.85
Trustee	Alumni	-6.69	1.26	0.00	-10.56	-2.83	
Curriculum Variety	Parent	Student	-2.42	0.47	0.00	-3.85	-0.99
		Alumni	3.69	0.52	0.00	2.11	5.28
	Student	Faculty	2.52	0.68	0.01	0.42	4.62
		Alumni	6.11	0.57	0.00	4.36	7.87
	Faculty	Alumni	3.60	0.72	0.00	1.39	5.80
Character Education	Parent	Student	-10.20	0.46	0.00	-11.61	-8.79
		Faculty	5.66	0.62	0.00	3.74	7.58
		Alumni	-2.01	0.51	0.00	-3.57	-0.44
	Student	Faculty	15.86	0.67	0.00	13.80	17.92
		Trustee	12.90	1.36	0.00	8.72	17.07
		Alumni	8.20	0.56	0.00	6.46	9.93
	Faculty	Alumni	-7.66	0.70	0.00	-9.84	-5.49
Trustee	Alumni	-4.70	1.37	0.02	-8.93	-0.47	
Faith Curriculum	Parent	Student	-7.89	1.14	0.00	-11.41	-4.37
		Faculty	10.53	1.63	0.00	5.51	15.55
		Alumni	-29.86	1.35	0.00	-34.01	-25.71
	Student	Faculty	18.41	1.73	0.00	13.09	23.73
		Alumni	-21.97	1.46	0.00	-26.48	-17.47
	Faculty	Trustee	-13.38	4.01	0.03	-25.74	-1.02
		Alumni	-40.39	1.87	0.00	-46.14	-34.63
Trustee	Alumni	-27.01	3.91	0.00	-39.04	-14.98	
College Prep Curriculum	Parent	Student	-7.07	0.44	0.00	-8.42	-5.73
		Alumni	-6.92	0.48	0.00	-8.40	-5.43
	Student	Faculty	6.89	0.63	0.00	4.93	8.84
		Trustee	8.48	1.29	0.00	4.50	12.45
	Faculty	Alumni	-6.74	0.67	0.00	-8.79	-4.68

	Trustee	Alumni	-8.32	1.31	0.00	-12.35	-4.30
Travel Opportunities	Parent	Student	27.91	1.11	0.00	24.50	31.32
		Faculty	9.52	1.52	0.00	4.85	14.19
		Trustee	19.27	3.21	0.00	9.38	29.17
		Alumni	35.65	1.25	0.00	31.81	39.49
	Student	Faculty	-18.39	1.60	0.00	-23.33	-13.45
		Alumni	7.74	1.35	0.00	3.57	11.90
	Faculty	Alumni	26.13	1.70	0.00	20.89	31.38
Trustee	Alumni	16.38	3.30	0.00	6.20	26.55	
Global Education	Parent	Faculty	11.80	1.08	0.00	8.48	15.13
		Trustee	8.79	2.28	0.01	1.75	15.83
		Alumni	21.30	0.89	0.00	18.56	24.04
	Student	Faculty	9.52	1.15	0.00	5.99	13.06
		Alumni	19.02	0.97	0.00	16.03	22.01
	Faculty	Alumni	9.49	1.22	0.00	5.75	13.24
	Trustee	Alumni	12.51	2.35	0.00	5.26	19.75
Caring of Faculty	Parent	Student	-6.06	0.35	0.00	-7.15	-4.98
		Faculty	-3.26	0.48	0.00	-4.74	-1.79
		Trustee	-6.27	1.03	0.00	-9.43	-3.10
		Alumni	-6.46	0.39	0.00	-7.66	-5.26
	Student	Faculty	2.80	0.52	0.00	1.21	4.39
	Faculty	Alumni	-3.20	0.54	0.00	-4.87	-1.53
Inspiration of Faculty	Parent	Student	-5.64	0.39	0.00	-6.83	-4.45
		Faculty	-2.14	0.53	0.00	-3.77	-0.52
		Alumni	-3.68	0.43	0.00	-5.00	-2.35
	Student	Faculty	3.50	0.57	0.00	1.75	5.24
		Trustee	4.92	1.15	0.00	1.39	8.46
		Alumni	1.96	0.48	0.00	0.50	3.43
Expertise of Faculty	Parent	Student	-4.64	0.38	0.00	-5.81	-3.47
		Faculty	-2.59	0.52	0.00	-4.17	-1.00
		Alumni	-3.14	0.42	0.00	-4.43	-1.85
	Student	Faculty	2.05	0.55	0.01	0.35	3.76
		Trustee	5.61	1.12	0.00	2.16	9.05
		Alumni	1.50	0.47	0.04	0.06	2.93
Trustee	Alumni	-4.11	1.13	0.01	-7.60	-0.63	
Variety of Athletic Offerings	Parent	Student	9.94	0.76	0.00	7.60	12.28
		Alumni	2.65	0.84	0.04	0.06	5.25
	Student	Faculty	-12.53	1.10	0.00	-15.92	-9.14
		Trustee	-8.06	2.23	0.01	-14.93	-1.19
		Alumni	-7.29	0.93	0.00	-10.15	-4.43

	Faculty	Alumni	5.24	1.16	0.00	1.66	8.81
Quality of Athletics	Parent	Student	5.12	0.72	0.00	2.90	7.35
		Alumni	-3.16	0.80	0.00	-5.62	-0.70
	Student	Faculty	-5.12	1.05	0.00	-8.34	-1.89
		Alumni	-8.28	0.88	0.00	-10.99	-5.57
	Trustee	Alumni	-8.87	2.15	0.00	-15.48	-2.26
Opportunity to Participate in Athletics	Parent	Faculty	-4.68	1.00	0.00	-7.77	-1.59
		Alumni	-4.26	0.82	0.00	-6.79	-1.73
	Student	Faculty	-3.41	1.07	0.04	-6.71	-0.11
		Alumni	-2.99	0.90	0.03	-5.77	-0.21
Variety of Fine Arts Offerings	Parent	Student	-5.27	0.69	0.00	-7.41	-3.13
		Faculty	5.25	0.94	0.00	2.37	8.13
		Alumni	7.64	0.77	0.00	5.26	10.01
	Student	Faculty	10.52	1.00	0.00	7.43	13.61
		Trustee	11.08	2.04	0.00	4.79	17.37
		Alumni	12.91	0.85	0.00	10.28	15.53
Quality of Fine Arts Offerings	Parent	Student	-7.38	0.66	0.00	-9.42	-5.33
		Faculty	3.41	0.89	0.01	0.66	6.17
		Alumni	4.00	0.74	0.00	1.73	6.27
	Student	Faculty	10.79	0.96	0.00	7.84	13.74
		Trustee	12.82	1.95	0.00	6.80	18.83
		Alumni	11.38	0.81	0.00	8.87	13.89
Opportunity to Participate in Fine Arts	Parent	Student	-9.92	0.69	0.00	-12.06	-7.79
		Faculty	3.29	0.93	0.02	0.41	6.17
		Alumni	2.96	0.77	0.01	0.59	5.33
	Student	Faculty	13.21	1.00	0.00	10.13	16.30
		Trustee	13.61	2.04	0.00	7.33	19.89
		Alumni	12.89	0.85	0.00	10.27	15.51
Variety of Club Offerings	Parent	Alumni	6.54	0.69	0.00	4.40	8.67
	Student	Alumni	6.11	0.76	0.00	3.77	8.45
	Faculty	Alumni	6.84	0.95	0.00	3.91	9.77
	Trustee	Alumni	7.67	1.87	0.00	1.92	13.42
Quality of Club Offerings	Parent	Faculty	4.21	0.80	0.00	1.76	6.67
		Alumni	6.32	0.65	0.00	4.31	8.33
	Student	Faculty	4.88	0.85	0.00	2.26	7.50
		Alumni	6.99	0.72	0.00	4.79	9.19
Opportunity to Participate in Clubs	Parent	Student	-4.34	0.60	0.00	-6.17	-2.50
		Alumni	3.04	0.66	0.00	1.01	5.08
	Student	Faculty	3.17	0.86	0.01	0.52	5.82
		Alumni	7.38	0.72	0.00	5.14	9.61

	Faculty	Alumni	4.20	0.91	0.00	1.41	6.99
Physical Safety	Parent	Student	-10.93	0.39	0.00	-12.13	-9.73
		Alumni	-6.42	0.43	0.00	-7.75	-5.08
	Student	Faculty	11.42	0.57	0.00	9.66	13.17
		Trustee	9.75	1.15	0.00	6.20	13.30
		Alumni	4.51	0.48	0.00	3.03	5.99
	Faculty	Alumni	-6.90	0.60	0.00	-8.75	-5.05
	Trustee	Alumni	-5.24	1.17	0.00	-8.84	-1.64
Emotional Safety	Parent	Student	-10.10	0.46	0.00	-11.53	-8.67
		Alumni	-3.08	0.52	0.00	-4.67	-1.49
	Student	Faculty	10.34	0.68	0.00	8.25	12.43
		Trustee	7.81	1.37	0.00	3.58	12.04
		Alumni	7.02	0.57	0.00	5.26	8.79
	Faculty	Alumni	-3.32	0.71	0.00	-5.52	-1.12
Spiritual Safety	Parent	Student	-11.15	0.72	0.00	-13.37	-8.93
		Faculty	4.20	1.00	0.00	1.12	7.28
		Alumni	-10.02	0.82	0.00	-12.55	-7.48
	Student	Faculty	15.36	1.06	0.00	12.08	18.63
		Trustee	7.50	2.25	0.03	0.57	14.42
	Faculty	Trustee	-7.86	2.35	0.03	-15.10	-0.61
Alumni	-14.22	1.14	0.00	-17.72	-10.72		
Socioeconomic Diversity	Parent	Student	3.57	1.01	0.02	0.45	6.69
		Faculty	21.72	1.36	0.00	17.54	25.91
		Trustee	15.24	2.91	0.00	6.27	24.21
		Alumni	25.18	1.11	0.00	21.77	28.59
	Student	Faculty	18.16	1.46	0.00	13.64	22.67
		Trustee	11.67	2.96	0.00	2.54	20.80
		Alumni	21.61	1.24	0.00	17.81	25.42
Trustee	Alumni	9.94	3.00	0.03	0.71	19.17	
Cultural Diversity	Parent	Student	5.70	0.96	0.00	2.76	8.65
		Faculty	20.30	1.29	0.00	16.31	24.28
		Trustee	14.52	2.77	0.00	5.99	23.05
		Alumni	26.12	1.06	0.00	22.86	29.37
	Student	Faculty	14.59	1.39	0.00	10.30	18.88
		Trustee	8.81	2.82	0.04	0.14	17.49
		Alumni	20.41	1.17	0.00	16.80	24.02
	Faculty	Alumni	5.82	1.46	0.00	1.32	10.32
Trustee	Alumni	11.60	2.85	0.00	2.82	20.38	
Religious Diversity	Parent	Student	17.55	1.18	0.00	13.91	21.19
		Faculty	20.37	1.63	0.00	15.36	25.38

		Alumni	24.64	1.32	0.00	20.57	28.70
	Student	Trustee	-13.48	3.61	0.01	-24.61	-2.35
		Alumni	7.08	1.45	0.00	2.62	11.55
	Faculty	Trustee	-16.29	3.78	0.00	-27.94	-4.64
	Trustee	Alumni	20.56	3.66	0.00	9.29	31.84
Availability of Technology	Parent	Student	-9.26	0.51	0.00	-10.84	-7.68
		Trustee	7.10	1.51	0.00	2.46	11.74
		Alumni	10.63	0.59	0.00	8.82	12.44
	Student	Faculty	9.33	0.75	0.00	7.02	11.64
		Trustee	16.36	1.53	0.00	11.64	21.07
		Alumni	19.89	0.65	0.00	17.90	21.88
	Faculty	Trustee	7.02	1.60	0.00	2.09	11.96
Alumni		10.56	0.80	0.00	8.08	13.03	
Current Technology	Parent	Student	-6.56	0.57	0.00	-8.33	-4.80
		Faculty	3.19	0.78	0.00	0.79	5.59
		Trustee	9.63	1.67	0.00	4.49	14.78
		Alumni	13.66	0.65	0.00	11.64	15.68
	Student	Faculty	9.75	0.84	0.00	7.18	12.33
		Trustee	16.20	1.70	0.00	10.97	21.42
		Alumni	20.22	0.72	0.00	18.00	22.45
	Faculty	Trustee	6.44	1.78	0.01	0.97	11.92
Alumni		10.47	0.89	0.00	7.72	13.22	
School-provided Technology	Parent	Faculty	8.27	1.22	0.00	4.51	12.04
		Alumni	12.83	1.04	0.00	9.64	16.03
	Student	Faculty	10.26	1.31	0.00	6.23	14.28
		Alumni	14.82	1.13	0.00	11.32	18.31
Faculty	Alumni	4.56	1.41	0.03	0.23	8.89	
Creative Skill	Parent	Student	-4.18	0.54	0.00	-5.84	-2.52
	Student	Faculty	4.32	0.75	0.00	2.00	6.64
		Alumni	5.82	0.73	0.00	3.57	8.06
	Faculty	Trustee	-3.76	1.59	0.23	-8.64	1.13
	Trustee	Alumni	5.25	1.57	0.03	0.40	10.10
Ethics Skill	Parent	Student	-9.25	0.49	0.00	-10.77	-7.73
		Faculty	3.10	0.62	0.00	1.18	5.02
	Student	Faculty	12.35	0.69	0.00	10.23	14.47
		Trustee	9.26	1.41	0.00	4.90	13.62
		Alumni	7.79	0.67	0.00	5.74	9.85
Faculty	Alumni	-4.56	0.77	0.00	-6.92	-2.19	
Curiosity Skill	Parent	Student	-6.37	0.53	0.00	-8.01	-4.73
		Faculty	2.64	0.67	0.00	0.57	4.72

	Student	Faculty	9.01	0.74	0.00	6.72	11.30
		Alumni	7.62	0.72	0.00	5.40	9.84
Resilience Skill	Parent	Student	-8.80	0.51	0.00	-10.38	-7.23
		Faculty	2.81	0.64	0.00	0.84	4.78
	Student	Faculty	11.61	0.71	0.00	9.43	13.80
		Trustee	6.89	1.45	0.00	2.41	11.37
		Alumni	7.33	0.69	0.00	5.21	9.45
	Faculty	Trustee	-4.72	1.50	0.04	-9.35	-0.09
Alumni		-4.29	0.79	0.00	-6.72	-1.86	
Teamwork Skill	Parent	Student	-6.48	0.60	0.00	-8.32	-4.64
		Faculty	2.36	0.76	0.05	0.03	4.70
	Student	Faculty	8.84	0.83	0.00	6.27	11.42
		Alumni	5.59	0.81	0.00	3.09	8.08
	Faculty	Alumni	-3.26	0.93	0.02	-6.14	-0.38
Time Management Skill	Parent	Student	-6.06	0.54	0.00	-7.71	-4.40
	Student	Faculty	7.68	0.75	0.00	5.37	9.99
		Alumni	4.86	0.73	0.00	2.62	7.10
	Faculty	Alumni	-2.82	0.84	0.02	-5.41	-0.24

APPENDIX B: Significant Congruence Coefficient Differences Between Promoter Groups

Congruence Factor	Group A	Group B	Mean Difference (A-B)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Academic Rigor	Distractor	Passive	-2.94	1.03	0.02	-5.46	-0.41
		Promoter	-9.17	0.98	0.00	-11.56	-6.78
	Passive	Promoter	-6.24	0.43	0.00	-7.30	-5.18
Curriculum Variety	Distractor	Passive	-9.30	1.11	0.00	-12.01	-6.58
		Promoter	-22.16	1.05	0.00	-24.72	-19.59
	Passive	Promoter	-12.86	0.47	0.00	-14.00	-11.72
Character Education	Distractor	Passive	-9.80	1.11	0.00	-12.53	-7.08
		Promoter	-18.80	1.05	0.00	-21.37	-16.22
	Passive	Promoter	-8.99	0.47	0.00	-10.13	-7.85
College Prep Curriculum	Distractor	Passive	-4.83	1.01	0.00	-7.31	-2.34
		Promoter	-12.94	0.96	0.00	-15.28	-10.59
	Passive	Promoter	-8.11	0.43	0.00	-9.16	-7.06
Travel Opportunities	Distractor	Passive	-7.19	2.82	0.04	-14.09	-0.29
		Promoter	-22.21	2.66	0.00	-28.73	-15.69
	Passive	Promoter	-15.02	1.18	0.00	-17.92	-12.13
Global Education	Distractor	Passive	-9.26	2.01	0.00	-14.19	-4.33
		Promoter	-20.67	1.90	0.00	-25.33	-16.01
	Passive	Promoter	-11.41	0.84	0.00	-13.47	-9.35
Faculty Caring	Distractor	Passive	-9.56	0.86	0.00	-11.67	-7.45
		Promoter	-19.81	0.81	0.00	-21.80	-17.82
	Passive	Promoter	-10.24	0.36	0.00	-11.13	-9.36
Faculty Inspiration	Distractor	Passive	-10.68	0.92	0.00	-12.93	-8.44
		Promoter	-22.51	0.87	0.00	-24.63	-20.39
	Passive	Promoter	-11.83	0.38	0.00	-12.77	-10.89
Faculty Expertise	Distractor	Passive	-9.94	0.89	0.00	-12.12	-7.77
		Promoter	-22.19	0.84	0.00	-24.24	-20.13
	Passive	Promoter	-12.24	0.37	0.00	-13.15	-11.33
Variety of Athletic Offerings	Distractor	Promoter	-6.62	1.79	0.00	-11.00	-2.24
	Passive	Promoter	-5.37	0.79	0.00	-7.31	-3.43
Quality of Athletics	Distractor	Promoter	-6.47	1.70	0.00	-10.62	-2.32
	Passive	Promoter	-7.43	0.75	0.00	-9.27	-5.59
Variety of Fine Arts Offerings	Distractor	Promoter	-9.84	1.66	0.00	-13.89	-5.78
	Passive	Promoter	-8.08	0.73	0.00	-9.86	-6.30
Quality of Fine Arts Offerings	Distractor	Promoter	-8.83	1.58	0.00	-12.69	-4.97
	Passive	Promoter	-7.66	0.69	0.00	-9.36	-5.97
Opportunity to Participate in Fine Arts	Distractor	Promoter	-7.83	1.65	0.00	-11.87	-3.78
	Passive	Promoter	-4.43	0.73	0.00	-6.20	-2.65
Variety of Clubs	Distractor	Passive	-8.14	1.54	0.00	-11.91	-4.38
		Promoter	-16.62	1.45	0.00	-20.17	-13.06

	Passive	Promoter	-8.47	0.65	0.00	-10.06	-6.88
Quality of Clubs	Distractor	Passive	-6.73	1.45	0.00	-10.27	-3.19
		Promoter	-16.46	1.37	0.00	-19.81	-13.12
	Passive	Promoter	-9.73	0.61	0.00	-11.23	-8.24
Opportunity to Participate in Clubs	Distractor	Passive	-6.41	1.47	0.00	-10.02	-2.80
		Promoter	-12.99	1.39	0.00	-16.40	-9.59
	Passive	Promoter	-6.58	0.62	0.00	-8.11	-5.06
Physical Safety	Distractor	Passive	-4.60	0.97	0.00	-6.98	-2.22
		Promoter	-8.74	0.92	0.00	-10.99	-6.49
	Passive	Promoter	-4.14	0.41	0.00	-5.13	-3.15
Emotional Safety	Distractor	Passive	-9.25	1.14	0.00	-12.06	-6.45
		Promoter	-20.75	1.08	0.00	-23.40	-18.10
	Passive	Promoter	-11.50	0.48	0.00	-12.67	-10.33
Spiritual Safety	Distractor	Promoter	-9.56	1.72	0.00	-13.78	-5.34
	Passive	Promoter	-6.58	0.76	0.00	-8.43	-4.72
Socioeconomic Diversity	Distractor	Promoter	-16.33	2.39	0.00	-22.18	-10.48
	Passive	Promoter	-11.87	1.05	0.00	-14.45	-9.30
Cultural Diversity	Distractor	Promoter	-16.12	2.27	0.00	-21.68	-10.55
	Passive	Promoter	-12.28	1.00	0.00	-14.72	-9.84
Religious Diversity	Distractor	Promoter	-19.71	2.83	0.00	-26.64	-12.78
	Passive	Promoter	-15.72	1.25	0.00	-18.79	-12.65
Availability of Technology	Distractor	Passive	-4.74	1.30	0.00	-7.92	-1.56
		Promoter	-10.06	1.23	0.00	-13.06	-7.05
	Passive	Promoter	-5.32	0.54	0.00	-6.64	-3.99
Current Technology	Distractor	Passive	-4.57	1.35	0.00	-7.88	-1.25
		Promoter	-10.28	1.28	0.00	-13.41	-7.14
	Passive	Promoter	-5.71	0.56	0.00	-7.09	-4.33
School-provided Technology	Distractor	Promoter	-11.39	2.08	0.00	-16.47	-6.30
	Passive	Promoter	-7.37	0.91	0.00	-9.60	-5.13
Creative Skill	Distractor	Passive	-8.72	1.32	0.00	-11.95	-5.49
		Promoter	-21.84	1.25	0.00	-24.91	-18.78
	Passive	Promoter	-13.12	0.53	0.00	-14.42	-11.82
Ethics Skill	Distractor	Passive	-8.67	1.23	0.00	-11.69	-5.65
		Promoter	-19.07	1.17	0.00	-21.94	-16.20
	Passive	Promoter	-10.39	0.50	0.00	-11.61	-9.18
Curiosity Skill	Distractor	Passive	-8.44	1.31	0.00	-11.64	-5.24
		Promoter	-22.35	1.24	0.00	-25.39	-19.31
	Passive	Promoter	-13.91	0.53	0.00	-15.20	-12.62
Resilience Skill	Distractor	Passive	-11.08	1.27	0.00	-14.19	-7.97
		Promoter	-22.71	1.21	0.00	-25.66	-19.75
	Passive	Promoter	-11.63	0.51	0.00	-12.88	-10.39
Teamwork Skill	Distractor	Passive	-4.08	1.49	0.02	-7.73	-0.43
		Promoter	-14.87	1.42	0.00	-18.33	-11.40

	Passive	Promoter	-10.78	0.60	0.00	-12.25	-9.31
Time Management Skill	Distractor	Passive	-9.81	1.33	0.00	-13.06	-6.57
		Promoter	-22.04	1.26	0.00	-25.13	-18.96
	Passive	Promoter	-12.23	0.53	0.00	-13.54	-10.92

References

Allen, I.E. and Seaman, C.A. (2007). **Statistics Roundtable: Likert Scales and Data Analyses. Quality Progress**. July, 2007. <http://asq.org/quality-progress/2007/07/statistics/likert-scales-and-data-analyses.html>.



The mission of SAIS is to strengthen member schools by providing high quality accreditation processes, comprehensive professional growth opportunities, and visionary leadership development programs.