Analysis of the Successful Practices Network
We Teach: Instructional Staff Survey

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Introduction

    The We Teach Instructional Staff Survey assesses staff perceptions of the three "R's" and of school leadership by asking for responses to statement based on these critical elements. We Teach survey provides school leadership and teachers with a powerful tool for understanding what instructional staff believes about the school.

Purpose

    The purpose of the current report was to examine the psychometric properties of the We Teach survey.

Sample

    A total of 3,409 respondents from 69 school districts across 19 stated participated by taking the We Teach Instructional Staff Survey. Among participants, 55.3% indicated themselves as female (n = 1,884) while 22% reported themselves as male (n = 751). Another 774 (22.7%) respondents did not indicate gender. Eighty-four percent (n = 2,286) of participants identified themselves as classroom teachers, 470 as instructional support staff (13.8%), and 73 participants did not indicate a current position title (2.1%). Respondents with only one year of experience at a single school accounted for 16.8% (n = 572) of responses. Participants with 2-5 years of experience at only one school accounted for 37.4% (n = 1275) of survey responses, and others (19.7%) indicated possessing 6-10 years of experience all at the same school (n = 673). Participants with 11-20 years experience at the same campus accounted for 16.4% of responses (n = 558), and those with 20+ years at the same campus accounted for 7.9% (n = 268). Regarding educational level, the results displayed in Table 1 indicate that the majority of participants held a bachelor's (42.8%), while .9% held a doctorate degree.

Table 1
Education Level among Participants in
the We Teach Survey

Education Level	Frequency	Percent	Cumulative Percent
High school/ GED	93	2.7	50.6
Bachelor's	1459	42.8	44.2
Master's	799	23.4	74.0
Master's+	888	26.0	100.0
Associate	93	2.7	47.0
Doctorate	30	.9	47.8
No Response	50	1.5	1.5
Total	3412	100.0	

Range of the Survey Item Means

Participants rated survey items based on a corresponding 5 choice scale that included: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4= Agree; and 5 = Strongly Agree. Negatively stated questions were reverse coded (Items 20, 27, 29, and 38). The item means ranged from 2.08 (SD = .938) for item 29, related to schools giving up on difficult students, to 4.51 (SD = .613) for item 2, related to staff using a variety of instructional strategies to help students learn (see Appendix A). The overall median response across the 60 items comprising the We Teach survey was 3.98. Table 2 displays the range of means among the 60 survey items.

Table 2
Range of Item Means

Range of Means	Frequency	Percent	Cumulative Percent
2.0-2.2	1	1.7	1.7
2.4-2.6	2	3.3	5.0
3.0-3.2	3	5.0	10.0
3.2-3.4	5	8.3	18.3
3.4-3.6	3	5.0	23.3
3.6-3.8	7	11.7	35.0
3.8-4.0	12	20.0	55.0
4.0-4.2	11	18.3	73.3
4.2-4.4	13	21.7	95.0
4.4-4.6	3	5.0	100.0
Total	60	100.0	

Scale Properties

To gain insight into the underlying structure of the We Teach instrument while also verifying the constructs embedded in the instrument, principal component analysis was conducted utilizing a Varimax orthogonal rotation. Based on the principal component analysis (PCA) and the results of the Parallel analysis (O'Connor, 2000), four underlying constructs were determined to be retained, which corresponded with expectations. Construct One included 19 items measuring Rigor, which means that critical thinking occurs on a regular basis. Construct Two included 13 items that enabled enables students to connect the learning content to personal experience. Construct Three included 14 items measuring relationships; the measured relationships were developed through a culture of respect. Construct Four included 14 items measuring Leadership, focusing on establishing and communicating a clearly defined set of beliefs about teaching and learning that is a collaborative effort. The four extracted constructs explained approximately 52% of the variance among total responses to the 60 item

survey instrument. Initial reliability estimates ranged from .801 (Relationships) to .877 (Leadership).

   Following the preliminary analysis and identification of the four constructs, in-depth reliability analyses were conducted. Results indicated that scale reliability would not improve significantly for any of the four constructs when deleting only one item. Acceptable reliability estimates should be .70 or greater for surveys and .90 or greater for high stakes exams (George & Mallery, 2003). The reliability estimates reported are in an acceptable range (Table 3).

Table 3
Reliability Estimates and Number of Survey Items for Each of Four Constructs

	Scale Length				Reliability Estimates			
Constructs	Rigor	Relevance	Relationships	Leadership	Rigor	Relevance	Relationships	Leadership
Initial	19	13	14	14	.81	.84	.81	.88

Inter-Scale Correlations

   Table 4 displays the inter-scale correlations. Correlations ranged from r = .541, Relevance and Leadership, to r = .762, between Rigor and Relevance. The results suggest a substantial degree of shared variance (29.26% to 58.06%) and a lack of independence among the four scales. Ideally, the inter-scale correlations should not be significant. When the inter-scale correlation is not significant, the scales lead to separate implications about staff perceptions of the three "R's" and of school leadership.

Table 4
Inter-Scale Correlations

	Rigor	Relevance	Relationship	Leadership
Rigor	1.00			
Relevance	.762[**]	1.00		
Relationship	.723[**]	.684[**]	1.00	
Leadership	.644[**]	.541[**]	.722[**]	1.00

**. Correlation is significant at the 0.01 level (2-tailed).

Discriminant Validity

   To provide insight into how participants with differing characteristics responded to the subscales measured by the We Teach survey, confidence interval charts were calculated. The charts plot participants' current position by the mean score on each subscale. The results indicate teachers rated Relationships and the Leadership lower than instructional support staff. The results below support discriminant validity of the

We Teach survey, with significant differences in scores for populations with different characteristics. The significant mean differences are noted when there is no overlap of confidence interval bars.
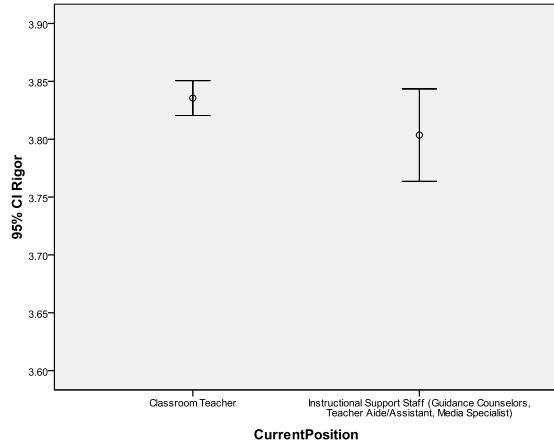

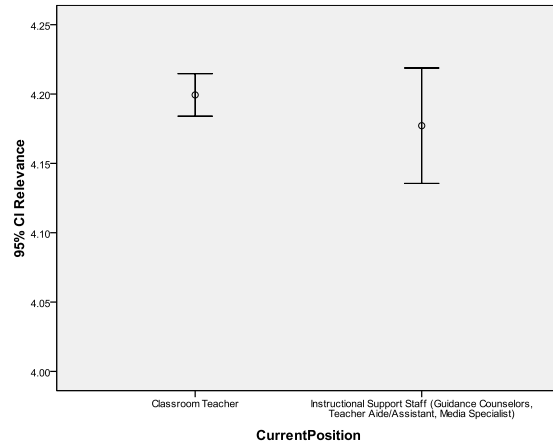Figure 1 . Comparison of Rigor by Position

Figure 2. Comparison of Relevance by Position
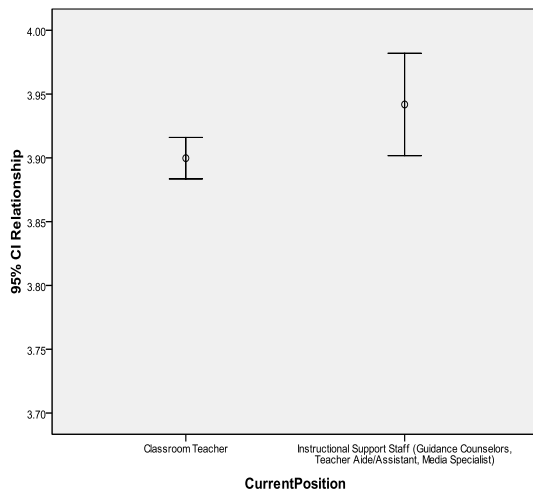
Figure 3. Comparison of Relationships by Position
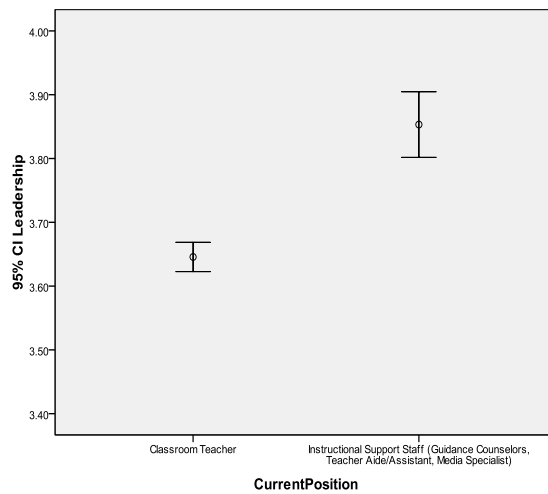
Figure 4. Comparison of Leadership by Position

Summary

There is high level of confidence in the reliability and validity of the We Teach survey. The We Teach survey demonstrates evidence of, or supports:

- That the total assessment and the four content areas reliably measured student perceptions of the three "R's" and of school leadership.
- Inter-scale correlational studies demonstrated high commonality between the content areas.
- PCA analyses and reliability indices indicated that We Learn survey items measure a single dimensional construct which supports construct validity.
- There is support for discriminant validity.

Recommendations

- Further work on validating the instrument and on improving the specific items to reduce inter-scale correlation is recommended.
- Consider reducing the length of the We Teach survey while collecting relevant information among the four constructs. Participant response rates decreased sharply as the survey increases in length. The increased pattern of non-responses began at item 40 (see Appendix B).

References

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.

O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instrumentation, and Computers, 32,* 396-402.

Appendix A
Percent Missing by Survey Item

Survey Item	Number Missing	Percent Missing
1. In my problems.	65	1.91
2. Staff learn.	95	2.79
3. school.	64	1.88
4. The school to staff.	98	2.87
5. Staff problems.	57	1.67
6. I use have learned.	101	2.96
7. I can administration.	50	1.47
8. My of this school.	50	1.47
9. I interesting.	53	1.55
10. Staff projects.	59	1.73
11. Staff .	53	1.55
12. Creative school.	66	1.94
13. I problems.	57	1.67
14. Students lives.	68	1.99
15. Staff .	50	1.47
16. Time teachers.	66	1.94
17. The .	74	2.17
18. I creatively.	82	2.41
19. This needs.	53	1.55
20. New assignments.	48	1.41
21. Student regularly.	70	2.05
22. I promote learning.	90	2.64
23. I classmates.	100	2.93
24. School stress.	84	2.46
25. Struggling successful.	69	2.02
26. I pathways.	92	2.70
27. I .	68	1.99
28. My .	108	3.17
29. This .	62	1.82
30. Teachers teach.	74	2.17
31. I of school.	73	2.14
32. I teacher.	90	2.64
33. If do it.	68	1.99
34. Staff learning.	59	1.73
35. for me.	67	1.97
36. Teachers .	87	2.55
37. I priority.	84	2.46
38. I know.	98	2.87
39. Staff work and actions.	81	2.38
40. School .	64	1.88
41. This students.	105	3.08
42. I .	157	4.61
43. My tests.	143	4.19

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44. I	students.	134	3.93
45. I	learners.	99	2.90
46. I	solving problems.	107	3.14
47. I	d goals.	115	3.37
48. School	of the staff.	103	3.02
49. I	instruction.	120	3.52
50. I	problems.	113	3.31
51. Students	with me.	111	3.26
52.	school wide decisions.	118	3.46
53. Students	is being taught.	120	3.52
54. I	technology responsibly.	138	4.05
55. I	students.	108	3.17
56. The	of trust.	105	3.08
57.	/or workforce ready.	112	3.29
58. I	practices.	112	3.29
59. I	about.	109	3.20
60. I , writing).		132	3.87

Appendix B
Descriptive Measures among Survey Items

Survey Item	M	SD	Min.	Max.
1. In problems.	4.17	.751	1	5
2. Staff learn.	4.51	.613	1	5
3. school.	3.14	1.010	1	5
4. The to staff.	3.92	.975	1	5
5. Staff questions and problems.	4.21	.717	1	5
6. I use have learned.	4.22	.703	1	5
7. I can administration.	3.66	1.145	1	5
8. My this school.	4.32	.640	1	5
9. I interesting.	4.38	.642	1	5
10. Staff and projects.	3.67	1.013	1	5
11. Staff respect students.	4.17	.717	1	5
12. Creative in this school.	3.84	.956	1	5
13. I problems.	4.15	.702	1	5
14. Students lives.	4.32	.663	1	5
15. Staff help each other.	4.21	.796	1	5
16. Time teachers.	3.27	1.268	1	5
17. The school proficiency.	3.83	.913	1	5
18. I design creatively.	3.96	.808	1	5
19. This needs.	3.82	.955	1	5
20. New assignments.	2.49	1.045	1	5
21. Student regularly.	3.66	.999	1	5
22. I promote learning.	4.32	.726	1	5
23. I classmates.	4.32	.675	1	5
24. School stress.	3.09	1.159	1	5
25. Struggling successful.	3.65	.976	1	5
26. I pathways.	4.00	.813	1	5
27. I colleagues.	2.44	1.115	1	5
28. My achievement.	3.72	.890	1	5
29. students.	2.08	.938	1	5
30. Teachers .	3.89	.772	1	5
31. I of school.	3.99	.735	1	5
32. I teacher.	3.70	1.005	1	5
33. If , they do it.	3.18	1.082	1	5
34. Staff to promote learning.	4.31	.680	1	5
35. My for me.	4.02	.848	1	5
36. .	4.00	.869	1	5
37. I one priority.	3.54	1.117	1	5
38. I know.	3.30	1.117	1	5
39. Staff work and actions.	4.12	.660	1	5
40. School suggestions.	3.44	1.056	1	5
41. This I students.	3.97	.948	1	5
42. I community.	3.90	.824	1	5
43. My state tests.	3.36	.912	1	5
44. I students.	4.31	.637	1	5
45. I learners.	4.40	.609	1	5
46. I problems.	4.36	.591	1	5
47. I and goals.	3.99	.681	1	5
48. of the staff.	3.60	1.049	1	5
49. I instruction.	4.13	.651	1	5
50. I problems.	4.33	.592	1	5

51.	with me.	4.02	.784	1	5
52.	wide decisions.	3.25	1.095	1	5
53. Students	taught.	3.97	.785	1	5
54. I teach	responsibly.	4.14	.692	1	5
55. I	students.	4.42	.579	1	5
56. The	of trust.	3.41	1.176	1	5
57. Students	ready.	3.34	.979	1	5
58.	practices.	4.07	.708	1	5
59. I	about.	3.92	.743	1	5
60. I	(i.e. speaking, writing).	4.29	.636	1	5