

Analysis of the Successful Practices Network
We Lead Whole Staff Survey

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Introduction

The We Lead survey was created to help schools efficiently measure the key factors of effective leadership. Schools across the country have used the data to set goals, improve specific targeted areas, and monitor progress over time. The data derived from the survey is one piece of a much larger picture school leaders use to understand their school's performance

Purpose

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

Sample

The sample size in the We Lead survey included 9,131 participants representing 86 school districts across 28 states. Among the participants, 65.3% were female (n = 5,965) while 19.8% were male (n = 1,810). Note 1,356 participants did not submit a response to this item (14.9%). Further, the current positions among the participants included 7,237 classroom teachers/instructional support staff (79.3%), 1,193 support staff (i.e., nurse, custodian, cafeteria staff) (13.1%), and 444 full-time department head or chairs (4.9%). Note 257 participants did not indicate their current position (2.8%). More than one-third of the participants (36.7%) had 2-5 years experience working in their current school (n = 3,354) while 1,331 participants were in their first year in their current role (14.9%). Regarding education level, the results displayed in Table 1 indicate that the majority of participants held a Master's degree (32.3%), while 8.3% held a Doctorate degree.

Table 1
Education Level among Participants in
the We Lead Survey

Education Level	Frequency	Percent	Cumulative Percent
High school/ GED	945	10.3	43.6
Associate	391	4.3	24.9
Bachelor's	1,807	19.8	20.6
Master's	2,946	32.3	75.8
Master's+	2,208	24.2	100.0
Doctorate	761	8.3	33.2
No Response	73	.8	.8
Total	9,131	100.0	

Results

Initially descriptive analyses were conducted to validate data entry, examine the completion of individual survey items, as well as check for pair-wise variable concordance and unit non-response. Sixty-four participants completed the demographic portion of the survey but did not respond to the survey items. In addition, 264 participants did not respond to at least 50 percent of the survey items. Subsequently, 328 participants (3.57%) were removed from further analyses. The results displayed in Appendix A revealed that the percentage of missing responses among survey items in the analysis ranged from 0% (survey item 47) to 3.63% (Item 18). In-depth analysis indicated that the increased percentage of non responses was due to the participants' current position. More concretely, support staff (i.e., nurse, custodian, cafeteria staff) were less likely to respond to items related to teaching and learning.

Range of Survey Item Means

Participants rated survey item based on a corresponding 5 choice scale that included 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4= Agree, and 5 = Strongly Agree. Note negatively stated questions were reverse coded. The item means ranged from 3.03 (SD = .954) for item 39, related to losing the benefits of new programs during implementation, to 4.51 (SD = .531) for item 47, related to openness to new ideas (see Appendix B). The overall median response across the 47 items comprising the We Lead survey was 3.91. Table 2 displays the range of means among the 47 survey items.

Table 2
Range of Item Means

Range of Item Means	Frequency	Percent	Cumulative Percent
3.0-3.2	2	4.3	4.3
3.2-3.4	4	8.5	12.8
3.4-3.6	12	25.5	38.3
3.6-3.8	8	17.0	55.3
3.8-4.0	7	14.9	70.2
4.0-4.2	10	21.3	91.5
4.2-4.4	3	6.4	97.9
4.4-4.6	1	2.1	100.0
Total	47	100.0	

Regarding individual survey items, the greatest amount of variation among responses (Appendix B) was associated with item number 14 (SD = 1.17) regarding the implementation of change by school administrators without undue stress, while the least varied response among survey participants was associated with item 47, which related to student openness to new ideas. The overall mean response to this item was 4.51 (SD = .532).

Scale Properties

To gain insight into the underlying structure of the SPN instrument while 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), it was determined that five underlying constructs should be retained, which were in-line with expectations. Construct one included six items measuring coherent vision, which was related to leaders developing, communicating, and building momentum for clearly defined beliefs about teaching and learning. Construct two included eleven items measuring empowerment measured staff members' clear understanding of their work and responsibility for outcomes. Construct three included fourteen items measuring a culture of learning, which measured teachers, administrators, and staff consistency in collaborating toward goals with a clear focus on continuous improvement, while often finding unexpected solutions to complex problems. Construct four included nine items measuring school management, related to the leader's ability to attend effectively to the daily operations of an organization. When schools are well managed, staff has confidence that the daily operations of the school will not interfere with their mission of teaching and learning. Finally, construct five included 7 items measuring community partnerships. Community partnership is related to leaders and leadership building external relationships. The five extracted constructs explained approximately 52% of the variance among total responses to the 47 item survey instrument. Initial reliability estimates ranged from .62 (Community Partnerships) to .89 (Empowerment).

Following the preliminary analysis and identification of the five constructs, in-depth reliability analyses were conducted. The results indicated that scale reliability would improve for construct five (Community Partnerships) with the deletion of one item, while no improvement in reliability for the remaining constructs could be achieved with item deletion. Reliability for construct five improved from .62 to .78 with the deletion of item 31, related to tension between the school and community. The PCA procedure was repeated with the identified survey item removed to determine how the survey items loaded. The results indicated that the survey items were loaded with the hypothesized construct. Reliability analysis was repeated. The resulting reliability estimates, as measured by Cronbach's alpha, and the total number of survey items for each construct are displayed in Table 3. Note 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 acceptable range.

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

Constructs	Scale Length					Reliability Estimates				
	Coherent Vision	Empower	Culture of Learning	School Manage	Community Partnership	Coherent Vision	Empower	Culture of Learning	School Manage	Community Partnership
Initial	6	11	14	9	7	.85	.89	.86	.82	.62
Final	6	11	14	9	6	.85	.89	.86	.82	.78

Inter-Scale Correlations

Table 4 displays the inter-scale correlations. Correlations ranged from $r = .603$, between School Management and Community Partnerships, to $r = .843$, between Empowerment and Culture of Learning. The results suggest a substantial degree of shared variance (36.4% to 71%) and a lack of independence among the five 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 what constitutes good leadership.

Table 4
Inter-Scale Correlations

	Coherent Vision	Empowerment	Culture of Learning	School Management	Community Partnerships
Coherent Vision	1.00				
Empowerment	.695**	1.00			
Culture of Learning	.779**	.843**	1.00		
School Management	.669**	.793**	.788**	1.00	
Community Partnerships	.617**	.647**	.669**	.603**	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 Lead survey, confidence interval charts were calculated. The charts plot participants' current position by the mean score on each subscale. The results indicate that full-time department heads or chairs rated each subscale higher when compared to teachers and support staff. Interestingly, teachers rated school management and the establishment of community partnerships lower than full-time department heads or chairs and cafeteria staff. The results below support discriminant validity of the We Lead survey, with significant differences in scores for populations with different characteristics. Note significant mean differences are noted when there is no overlap of confidence interval bars.

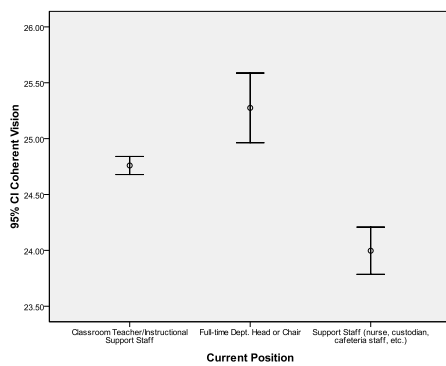


Figure 1. Comparison of Coherent Vision

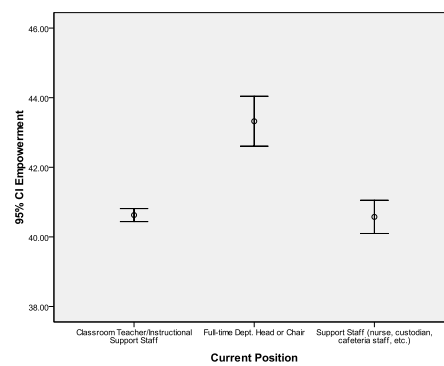


Figure 2. Comparison of Empowerment

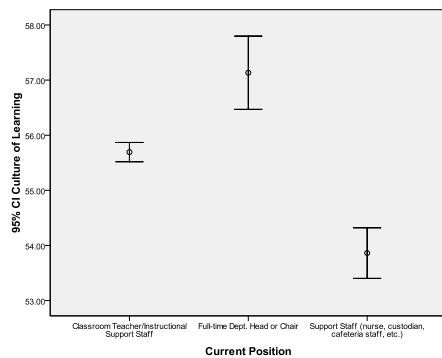


Figure 3. Comparison of Culture of Learning

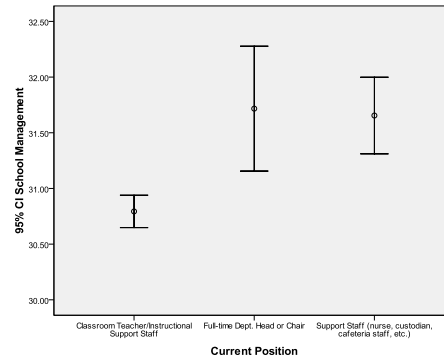


Figure 4. Comparison of School Management

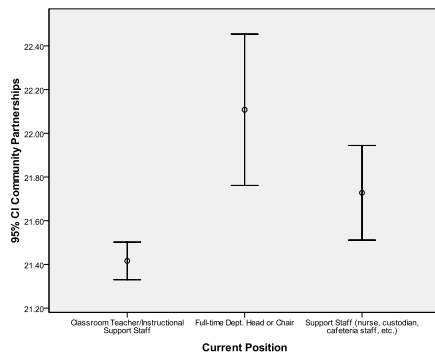


Figure 5. Comparison of Community Partnerships

Summary

There is high level of confidence in the reliability and validity of the We Lead survey.

The We Lead survey demonstrates evidence of, or supports:

- That the total assessment and the five content areas reliably measured leadership knowledge and skills.
- Inter-scale correlational studies demonstrated high commonality between the content areas.
- PCA analyses and reliability indices indicated that We Lead 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 altering the instrument to ensure all survey items are relevant for all participants (i.e., teaching and learning items may not be appropriate for certain support staff).

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. There and staff.	25	0.28
2. The expectations.	104	1.18
3. I am the administration.	84	0.95
4. Creative in this school.	77	0.87
5. I for this school.	47	0.53
6. I community groups.	93	1.06
7. Poor staff by the administration.	49	0.56
8. I mission statement.	83	0.94
9. My in student achievement.	203	2.30
10. New work assignments.	82	0.93
11. I community.	228	2.59
12. My the mission of this school.	61	0.69
13. School of the staff.	47	0.53
14. School undue stress.	59	0.67
15. School a leader.	61	0.69
16. School from students.	47	0.53
17. I have decisions.	49	0.56
18. I effective teacher.	320	3.63
19. School climate of trust.	85	0.97
20. Professional goals.	127	1.44
21. Poor by other staff members.	57	0.65
22. This school grow professionally.	70	0.79
23. I can freely administrators.	44	0.50
24. This school and learning.	90	1.02
25. I want students.	196	2.23
26. I seek .	109	1.24
27. The our school.	56	0.64
28. School effectively.	60	0.68
29. School my teaching.	199	2.26
30. I have needs of students.	193	2.19
31. There community.	52	0.59
32. I see leader.	34	0.39
33. colleagues.	198	2.25
34. with my job.	107	1.21
35. I am community.	70	0.79
36. I interest.	48	0.54
37. Staff needs of all students.	63	0.72
38. Staff are practices.	80	0.91
39. The implementation.	108	1.23
40. School community groups.	64	0.73
41. Staff community.	57	0.65
42. School confidentiality.	47	0.53
43. School and learning.	191	2.17
44. The school goals.	68	0.77
45. The partnerships for students.	4	0.05
46. People responsibilities.	2	0.02
47. I am ideas.	0	0.00

Appendix B

Descriptive Measures among Survey Items

Survey Item	M	SD	Min.	Max.
1. There and staff.	3.69	1.112	1	5
2. The	4.18	.775	1	5
3. I administration.	3.99	.967	1	5
4. Creative in this school.	3.88	1.009	1	5
5. I school.	3.55	1.088	1	5
6. I groups.	3.63	.912	1	5
7. Poor administration.	3.54	1.104	1	5
8. I statement.	4.18	.756	1	5
9. My success achievement.	3.83	.921	1	5
10. work assignments.	3.59	1.002	1	5
11. I to the community.	3.89	.784	1	5
12. My of this school.	4.15	.672	1	5
13. School of the staff.	3.73	1.078	1	5
14. School undue stress.	3.22	1.170	1	5
15. School leader.	3.52	1.006	1	5
16. School students.	3.58	.971	1	5
17. I have decisions.	3.39	1.096	1	5
18. I teacher.	3.65	1.041	1	5
19. School of trust.	3.54	1.152	1	5
20. Professional	3.90	.882	1	5
21. Poor members.	3.35	1.013	1	5
22. This professionally.	3.56	.993	1	5
23. I can administrators.	3.62	1.151	1	5
24. This school and learning.	3.51	.961	1	5
25. I students.	4.28	.672	1	5
26. I seek opportunities.	4.14	.740	1	5
27. to improve our school.	3.27	.823	1	5
28. School effectively.	3.54	1.052	1	5
29. School my teaching. improve	4.07	.809	1	5
30. I have students.	4.17	.686	1	5
31. and community.	3.52	1.039	1	5
32. I see	4.09	.764	1	5
33. Time my colleagues.	3.45	1.147	1	5
34. with my job.	3.14	1.109	1	5
35. I am proud community.	4.34	.718	1	5
36. I trust best interest.	3.87	.897	1	5
37. Staff of all students.	4.24	.681	1	5
38. Staff practices.	3.63	.989	1	5
39. The implementation.	3.03	.955	1	5
40. School groups.	3.55	.844	1	5
41. Staff community.	4.01	.794	1	5
42. School confidentiality.	3.88	.969	1	5
43. School and learning.	3.77	.964	1	5
44. goals.	4.09	.732	1	5
45. The partnerships for students.	3.66	.944	1	5
46. People	3.89	.904	1	5
47. I ideas.	4.51	.532	2	5

