Supplementary Table S1
Item-Level Diagnostics for MLQ-5x Leadership Scales (N = 71)

SCORING NOTE: Passive-Avoidant items are REVERSE-CODED (6 minus original score) so that higher scores indicate lower endorsement of passive-avoidant behaviors, consistent with the positive valence of other leadership scales. All statistics below reflect reverse-coded values for Passive-Avoidant items.

Panel A: Transformational Leadership (α = .783, ω = .82)

Item	Sub	Item Content (Abbreviated)	M	SD	r(i-t)	α(-i)
10	IIA	Instills pride in others for being associated with me	4.48	0.63	0.530	0.765
18	IIA	Goes beyond self-interest for the good of the group	4.27	1.03	0.139*	0.792
21	IIA	Acts in ways that build others' respect for me	4.70	0.49	0.538	0.768
25	IIA	Displays a sense of power and confidence	4.24	0.85	0.313	0.776
6	IIB	Talks about most important values and beliefs	3.48	1.16	0.018*	0.806
14	IIB	Specifies importance of having strong sense of purpose	4.32	0.67	0.383	0.772
23	IIB	Considers moral and ethical consequences of decisions	4.38	0.80	0.242*	0.781
34	IIB	Emphasizes importance of collective sense of mission	4.46	0.77	0.585	0.758
9	IM	Talks optimistically about the future	4.45	0.75	0.557	0.761
13	IM	Talks enthusiastically about what needs to be accomplished	4.35	0.78	0.456	0.767
26	IM	Articulates compelling vision of the future	4.35	0.72	0.388	0.772
36	IM	Expresses confidence that goals will be achieved	4.07	0.90	0.165*	0.787
2	IS	Re-examines critical assumptions to question appropriateness	4.14	0.83	0.088*	0.791
8	IS	Seeks differing perspectives when solving problems	4.38	0.95	0.424	0.768
30	IS	Gets others to look at problems from many angles	4.58	0.60	0.607	0.762
32	IS	Suggests new ways of looking at how to complete assignments	4.42	0.75	0.668	0.754
15	IC	Spends time teaching and coaching	4.32	0.79	0.295*	0.777
29	IC	Considers individuals as having different needs and abilities	4.15	1.06	0.388	0.772
31	IC	Helps others develop their strengths	4.68	0.53	0.638	0.763
	Scale	Transformational Leadership Mean	4.33	0.37	α=0.783	n=19

Note. r(i-t) = corrected item-total correlation; α(-i) = Cronbach's alpha if item deleted. *Item-total correlation below .30 threshold. Subscales: IIA = Idealized Influence (Attributed); IIB = Idealized Influence (Behavior); IM = Inspirational Motivation; IS = Intellectual Stimulation; IC = Individualized Consideration. Item 19 removed from study.

Panel B: Transactional Leadership (α = .583, ω = .59)

Item	Sub	Item Content (Abbreviated)	M	SD	r(i-t)	α(-i)
1	CR	Provides assistance in exchange for efforts	4.11	1.01	0.208*	0.577
11	CR	Discusses specific terms for responsibility for goals	4.11	0.80	0.307	0.545
16	CR	Makes clear what one can expect when goals are achieved	4.28	0.81	0.320	0.542
35	CR	Expresses satisfaction when others meet expectations	4.46	0.75	0.129*	0.591
4	MBE-A	Focuses attention on irregularities and deviations	3.54	1.04	0.325	0.537

22	MBE-A	Concentrates attention on dealing with mistakes	2.80	1.10	0.162*	0.599
24	MBE-A	Keeps track of all mistakes	3.85	0.94	0.550	0.460
27	MBE-A	Directs attention toward failures to meet standards	4.15	0.82	0.350	0.533
	Scale	Transactional Leadership Mean	3.91	0.46	α=0.583	n=8

Note. CR = Contingent Reward; MBE-A = Management-by-Exception (Active).

Panel C: Passive-Avoidant Leadership — REVERSE-CODED (α = .617, ω = .65)

Item	Sub	Item Content (Abbreviated)	M	SD	r(i-t)	α(-i)
3	MBE-P	Fails to interfere until problems become serious	3.41	1.15	0.165*	0.631
12	MBE-P	Waits for things to go wrong before taking action	4.10	1.03	0.354	0.573
17	MBE-P	Shows belief in "if it ain't broke, don't fix it"	4.14	1.02	0.310	0.586
20	MBE-P	Demonstrates problems must become chronic before acting	3.73	1.24	0.178*	0.632
5	LF	Avoids getting involved when important issues arise	4.45	0.98	0.432	0.552
7	LF	Is absent when needed	4.79	0.61	0.413	0.577
28	LF	Avoids making decisions	4.32	1.00	0.508	0.529
33	LF	Delays responding to urgent questions	4.30	1.13	0.298*	0.590
	Scale	Passive-Avoidant Leadership Mean (Rev)	4.15	0.54	α=0.617	n=8

Note. ALL ITEMS REVERSE-CODED (6 - original score). Higher scores indicate LOWER endorsement of passive-avoidant behaviors. MBE-P = Management-by-Exception (Passive); LF = Laissez-Faire. Purple shading indicates reverse-coded items.

Panel D: Leadership Outcome (α = .886, ω = .89)

Item	Sub	Item Content (Abbreviated)	M	SD	r(i-t)	α(-i)
42	EE	Heightens others' desire to succeed	4.41	0.67	0.547	0.883
44	EE	Increases others' willingness to try harder	4.44	0.63	0.629	0.874
37	EFF	Is effective in meeting others' job-related needs	4.34	0.74	0.688	0.869
40	EFF	Is effective in representing others to higher authority	4.52	0.61	0.649	0.872
43	EFF	Is effective in meeting organizational requirements	4.52	0.56	0.721	0.867
45	EFF	Leads a group that is effective	4.38	0.72	0.700	0.867
38	SAT	Uses methods of leadership that are satisfying	4.42	0.65	0.739	0.863
41	SAT	Works with others in a satisfactory way	4.59	0.62	0.599	0.877
	Scale	Leadership Outcome Mean	4.45	0.49	α=0.886	n=8

Note. EE = Extra Effort; EFF = Effectiveness; SAT = Satisfaction. Item 39 removed from study.

Supplementary Table S2
Item-to-Scale Mappings and Scoring Key for MLQ Form-5x

Leadership Dimension	Subscale	Item Numbers	Items in Study	Scoring
Transformational	Idealized Influence (Attributed)	10, 18, 21, 25	4	Direct
	Idealized Influence (Behavior)	6, 14, 23, 34	4	Direct
	Inspirational Motivation	9, 13, 26, 36	4	Direct
	Intellectual Stimulation	2, 8, 30, 32	4	Direct
	Individualized Consideration	15, 19*, 29, 31	3 (19 removed)	Direct
	TOTAL TRANSFORMATIONAL	20 items (original)	19 items	
Transactional	Contingent Reward	1, 11, 16, 35	4	Direct
	Management-by-Exception (Active)	4, 22, 24, 27	4	Direct
	TOTAL TRANSACTIONAL	8 items (original)	8 items	
Passive-Avoidant	Management-by-Exception (Passive)	3, 12, 17, 20	4	REVERSE (6-score)
	Laissez-Faire	5, 7, 28, 33	4	REVERSE (6-score)
	TOTAL PASSIVE-AVOIDANT	8 items (original)	8 items	ALL REVERSE
Leadership Outcome	Extra Effort	39*, 42, 44	2 (39 removed)	Direct
	Effectiveness	37, 40, 43, 45	4	Direct
	Satisfaction	38, 41	2	Direct
	TOTAL LEADERSHIP OUTCOME	9 items (original)	8 items	
GRAND TOTAL		45 items (original)	43 items	

Note. *Items 19 and 39 were removed from this study as non-principals could not authentically respond to questions requiring observation of their own leadership impact. Item numbers follow Mind Garden MLQ Form-5x scoring key.

Scoring Formulas
Transformational Leadership = Mean(Items 2, 6, 8, 9, 10, 13, 14, 15, 18, 21, 23, 25, 26, 29, 30, 31, 32, 34, 36)
Transactional Leadership = Mean(Items 1, 4, 11, 16, 22, 24, 27, 35)
Passive-Avoidant Leadership = Mean([6-Item3], [6-Item5], [6-Item7], [6-Item12], [6-Item17], [6-Item20], [6-Item28], [6-Item33])
Leadership Outcome = Mean(Items 37, 38, 40, 41, 42, 43, 44, 45)

Supplementary Table S3

Item-Level Response Distributions for Passive-Avoidant and Leadership Outcome Scales (N = 71)

Panel A: Passive-Avoidant Leadership Items (Reverse-Coded)

Item	Sub	Item Content	M	SD	r(i-t)	α(-i)	1	2	3	4	5
3	MBE-P	Fails to interfere until problems become serious	3.41	1.15	0.165*	0.631	5.6%	16.9%	28.2%	29.6%	19.7%
12	MBE-P	Waits for things to go wrong before taking action	4.10	1.03	0.354	0.573	1.4%	8.5%	14.1%	31.0%	45.1%
17	MBE-P	Shows belief in "if it ain't broke, don't fix it"	4.14	1.02	0.310	0.586	1.4%	7.0%	15.5%	28.2%	47.9%
20	MBE-P	Demonstrates problems must become chronic before acting	3.73	1.24	0.178*	0.632	5.6%	14.1%	16.9%	28.2%	35.2%
5	LF	Avoids getting involved when important issues arise	4.45	0.98	0.432	0.552	1.4%	7.0%	5.6%	16.9%	69.0%
7	LF	Is absent when needed	4.79	0.61	0.413	0.577	1.4%	0.0%	1.4%	12.7%	84.5%
28	LF	Avoids making decisions	4.32	1.00	0.508	0.529	1.4%	8.5%	4.2%	28.2%	57.7%
33	LF	Delays responding to urgent questions	4.30	1.13	0.298*	0.590	7.0%	1.4%	5.6%	26.8%	59.2%

Note. All items REVERSE-CODED (6 - original). Response frequencies show percentage selecting each option AFTER reverse-coding (1 = high passive-avoidant, 5 = low passive-avoidant behavior). Scale: M = 4.15, SD = 0.54, α = .617.

Panel B: Leadership Outcome Items

Item	Sub	Item Content	M	SD	r(i-t)	α(-i)	1	2	3	4	5
42	EE	Heightens others' desire to succeed	4.41	0.67	0.547	0.883	0.0%	0.0%	9.9%	39.4%	50.7%
44	EE	Increases others' willingness to try harder	4.44	0.63	0.629	0.874	0.0%	0.0%	7.0%	42.3%	50.7%
37	EFF	Is effective in meeting others' job-related needs	4.34	0.74	0.688	0.869	0.0%	0.0%	15.5%	35.2%	49.3%
40	EFF	Is effective in representing others to higher authority	4.52	0.61	0.649	0.872	0.0%	0.0%	5.6%	36.6%	57.7%
43	EFF	Is effective in meeting organizational requirements	4.52	0.56	0.721	0.867	0.0%	0.0%	2.8%	42.3%	54.9%
45	EFF	Leads a group that is effective	4.38	0.72	0.700	0.867	0.0%	1.4%	9.9%	38.0%	50.7%
38	SAT	Uses methods of leadership that are satisfying	4.42	0.65	0.739	0.863	0.0%	1.4%	4.2%	45.1%	49.3%
41	SAT	Works with others in a satisfactory way	4.59	0.62	0.599	0.877	0.0%	1.4%	2.8%	31.0%	64.8%

Note. Response frequencies show percentage selecting each option (1 = not at all, 5 = frequently/always). Scale: M = 4.45, SD = 0.49, α = .886.

Panel C: Careless Responding Analysis

Indicator	Result	Flagged n (%)
Straightlining (≥80% identical responses)	M = 0.643 (SD = 0.165)	18 (25.4%)
Intra-Individual SD (ISD < 0.50)	M = 0.803 (SD = 0.262)	5 (7.0%)
Person-Total Correlation (r < .20)	M = 0.408 (SD = 0.296)	19 (26.8%)
Total Flagged (any criterion)	—	34 (47.9%)

Panel D: Scale Correlation Analysis

Analysis	N	Spearman rs	p-value
Full sample (PA reverse-coded)	71	0.320	.007

After excluding flagged participants	37	0.125	.463

Note. Correlation calculated between reverse-coded Passive-Avoidant scale mean and Leadership Outcome scale mean. With reverse-coding, a positive correlation indicates that lower passive-avoidant behavior is associated with higher leadership outcomes, which is the theoretically expected direction.

Critical Observations

1. Response Pattern: After reverse-coding, both Passive-Avoidant (M = 4.15) and Leadership Outcome (M = 4.45) items show similar distributions with responses clustered at higher values. This indicates teachers generally report low passive-avoidant behaviors and high anticipated leadership effectiveness.
2. Theoretical Alignment: The positive correlation (rs = .320) between reverse-coded Passive-Avoidant and Leadership Outcome scales aligns with theory: teachers who report lower passive-avoidant tendencies also anticipate better leadership outcomes.
3. Careless Responding Impact: The high proportion of flagged participants (47.9%) and the attenuation of the correlation after their removal (rs = .125, ns) suggests measurement artifacts may inflate the observed association. This warrants interpretive caution.
4. Scale Reliability: The Passive-Avoidant scale shows lower internal consistency (α = .617) compared to Leadership Outcome (α = .886), with several items showing below-threshold item-total correlations. This suggests the PA scale may be measuring heterogeneous content in this sample.