

LEADERSHIP PRACTICES INVENTORY

Psychometric Properties (June 2000)

The following information is provided for those interested in the latest information about the psychometric properties of the Leadership Practices Inventory (LPI) and research behind the *Five Practices of Exemplary Leadership*.

A change in the response scale, from five-point to ten-point, was made for the second edition of the LPI. In addition, a few statements were revised and editorial changes were made in several other statements. Responses from observers can now be further categorized by their relationship to the leader (e.g., manager, direct report, co-worker or peer, and other). Otherwise the basic structure of the instrument was not altered (i.e., five scales of leadership practices, each one measured by responses to six statements, on a 10-point Likert scale, about how frequently this behavior was engaged in). The results described here are consistent with those reported earlier from the first edition of the LPI. The total sample size used in this analysis was 17,908 (Self = 2,072; Manager = 1,426; Direct Report = 5,234; Co-Worker/Peer = 5,591; and Other = 3,585).

RELIABILITY. Internal reliability, as measured by Cronbach's Alpha, continues to be strong, with all scales above the .75 level. This is true for the Self version as well as for all Observers and for each Observer category.

Leadership Practice	Self	Observers (All)	Manager	Direct Report	Co-Worker or Peer	Others
Challenge	.80	.89	.89	.90	.88	.88
Inspire	.87	.92	.92	.92	.91	.91
Enable	.75	.88	.86	.89	.87	.88
Model	.77	.88	.86	.90	.87	.87
Encourage	.87	.92	.92	.93	.92	.93

COMPARISONS BETWEEN SELF AND OBSERVERS. As the sample size increases, the chance of finding statistically significant differences between groups also increases, even if these differences are not, for any one individual respondent, particularly meaningful or "significant." This has generally been true for the LPI. Empirical tests of differences between leaders (using the LPI-Self form) and their constituents (using the LPI-Observer form) reveal no statistically significant differences (at the .001 level of probability) between these two groups on Challenging and Modeling. While statistically significant, the mean differences between these two groups on Inspiring, Enabling, and Encouraging have little practical significance, except to note that leaders view themselves as engaging slightly less in Inspiring and Encouraging, and slightly more in Enabling, than do their constituents.

Comparisons between leaders (LPI-Self) and their specific constituencies reveal no statistically significant differences ($p < .001$) for the leadership practices of Challenging and Modeling. Direct Reports, Coworkers/Peers and Others report their leaders engaging more on Inspiring than do the Leaders themselves (LPI-Self). For Enabling there are no differences between the Leaders' views and those from their Managers or Direct Reports. Coworkers/Peers and others report less Enabling than do Leaders. On Encouraging, the scores from Leaders and their Direct

Reports are not statistically different, while Manager, Coworker/Peers and Others report more Encouraging than do Leaders.

Leadership Practice		Self	Observers (All)	Manager	Direct Report	Co-Worker or Peer	Others
Challenge	Mean	43.9	44.4	44.0	44.3	44.5	44.4
	Std Deviation	6.8	9.1	8.5	9.9	8.5	9.0
Inspire	Mean	40.6	42.0	40.4	42.4	41.6	42.7
	Std Deviation	8.8	10.6	10.1	11.4	9.9	10.2
Enable	Mean	48.7	47.8	48.0	48.2	47.6	47.5
	Std Deviation	5.4	8.4	6.9	9.3	7.8	8.5
Model	Mean	47.0	47.5	47.6	47.2	47.5	47.6
	Std Deviation	6.0	8.5	7.4	9.5	7.8	8.3
Encourage	Mean	43.8	44.9	45.4	44.5	45.0	45.0
	Std Deviation	8.0	10.2	8.3	11.5	9.4	10.2

FACTOR STRUCTURE. A five-factor solution for the LPI (both the Self and Observer versions) was generated by a factor analysis, using principal component analysis with varimax rotation and Kaiser normalization. While some statements loaded on more than one factor, their highest loading was generally with the other statements conceptualized as comprising that factor (scale). These results provide continued empirical support for these various leadership behaviors to be conceptualized within five practices (challenging, inspiring, enabling, modeling, and encouraging).

RECENT VALIDATION:

- _ Principals from “Blue Ribbon” schools had consistently higher LPI scores than their counterparts from non-Blue Ribbon schools (Knab ‘98)
- _ LPI scores were significantly related to employee commitment levels (Gunter ‘97)
- _ Leadership practices were significantly related (positive direct) to perceptions of workplace empowerment (Sproule ‘97)
- _ Significant relationships between LPI scores for pastors and the job satisfaction of their ministerial staff members were reported (Patterson ‘97)
- _ LPI scores were significantly higher (using pre and post-tests) as a result of collegiate leadership development program (Brungardt ‘97)
- _ Burnout among mental health professionals was inversely related to LPI scores of their supervisors (Webster & Hackett ‘99)
- _ Job satisfaction, productivity and organizational commitment were all significantly correlated with managers' use of leadership behaviors (LPI) with Singaporean managers (Foong ‘99)

- _ LPI reliability scores were $< .82$ for Self and $< .92$ for Observers (Singh '98); reliability scores for Philippine managers were greater than $.73$ for Self and $.86+$ for Observers (Chitonnom 99)
- _ No significant relationships were found between LPI and gender (Sproule '97, Singh '98, LaVine '98 Kahl '99); females reported higher LPI scores than males (Randall '99)