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The Leadership Practices Inventory is adapted for use with college students and validated in a nationwide survey of fraternity chapter presidents.

Few people question the importance of leadership in organizational effectiveness, even though there is little agreement about how to develop leaders. Nevertheless, nearly every college and university has established some sort of leadership education program for students (Hirschorn, 1988), demonstrating a belief that leadership can be learned and enhanced through an educational process.

The majority of these educational experiences are conceptually based on studies and models that were developed with managers in business and public sector organizations (Clark & Freeman, 1990). Likewise, the assessment techniques used have generally been borrowed from noncollege environments. Indeed, serious questions can be raised about whether such models and instruments are applicable to college students, who differ from managerial populations by age, experience, and types of organizations (work). College students are also different because they primarily work with volunteers and people from their own peer group and, alternately, enjoy and suffer from built-in high rates of turnover. Student leaders are typically involved with social or service-based organizations, as compared with the product- or technology-based

organizations of managers. Student organizations, which exist within a largely noncompetitive environment, do not typically have any profit motives or, often, any objective or comparative effectiveness or performance measure. Based on her review of the literature, Brodsky (1988) concluded, "Valid instruments designed specifically for college students to measure their leadership development do not exist" (p. 23).

The Leadership Practices Inventory (LPI; Kouzes & Posner, 1988) is one leadership assessment instrument that has been used in leadership development programs by a number of well-respected organizations, such as IBM, Motorola, Ciba-Giegy, and Levi Strauss. Derived from the research of Kouzes and Posner (1987), this leadership model identifies specific behaviors and actions that managers report using when they are at "their personal best" as leaders. These behaviors are categorized into five leadership practices that are labeled Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart. Identified as practices common to successful leaders, these leadership practices correspond well to the developmental issues of importance for college students, as noted by Roberts (1981), and the specific qualities required by student leaders (Newton, 1981).

The primary goal of this research was to develop an instrument that would enable college students to measure their own leadership capability. The study was conducted in three stages: (a) adapting the Kouzes-Posner leadership model to college students' experiences, (b) pilot testing a modified LPI for college students, and (c) validating the relationship between leadership practices and effectiveness.

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INSTRUMENT DEVELOPMENT

Personal Best Leadership Experience

Kouzes and Posner (1987) reported interviewing over 550 managers about their personal best experience as a leader. Content analyses suggested a pattern of actions and behaviors that people reported using when they were most effective as a leader. This same case study approach was used to investigate whether the leadership actions and behaviors of students were comparable to those of managers.

The student group was composed of outstanding student leaders, as demonstrated by their nomination for Leadership America (a nationally prominent leadership development experience for college students) by staff and faculty members on the basis of a record of leadership, academic ability, and future leadership potential. Four students were randomly selected by year in school (junior or senior) and sex (male or female) to participate in this stage of the research project.

At our invitation, each student voluntarily agreed to participate in the study. A preliminary interview explained the study's purpose and process. Students were asked to think about their own personal best experience as a leader and make notes about the actions and behaviors that they believed were most critical to the success of their endeavor. One week later, using a structured interview format, the students responded to specific questions based on the personal best survey reported by Kouzes and Posner (1987). These interviews served to clarify any language, behaviors, or concepts that might be unclear for students or that did not readily translate from the business world to the college student world. The interviews lasted between 30 and 90 minutes and all were tape recorded with the respondent's consent.

The student interviews were content analyzed, with the unit of analysis being themes (sentences or phrases) about leadership actions and behaviors. These themes were coded and tabulated into the five leadership categories proposed by Kouzes and Posner (1987). There were 264 total responses that were coded for congruence.

Actions and behaviors concerned with the leadership practice of Enabling Others to Act were most frequent (29.9%), after which the most frequent were the leadership practices of Modeling the Way (21.2%) and Inspiring a Shared Vision (18.9%). About one third of the leadership behaviors were coded with the leadership practice of Encouraging the Heart (15.2%) and Challenging the Process (14.8%). These findings indicate that college student leaders do engage in the leadership practices reported by Kouzes and Posner (1987) and that their conceptual framework is relevant to the college student's leadership experience.

Each question on the LPI was assessed in terms of its congruence with the themes derived from students' case studies of their personal best leadership experiences. The purpose of this coding was to determine which LPI statements accurately reflected the behavior of *student* leaders, thus facilitating the process of identifying terminology and concepts appropriate for use with a college student population. Using these data, 23 of the 30 LPI items were modified for use in the pilot version of the Student–LPI.

The majority of changes, however, consisted of very slight alterations in wording to obtain more appropriate terminology and language (14) or concept (3). For example, "at work" was changed to "in our organization." Six questions received major changes in language or concept, for example "I am contagiously excited and enthusiastic" was changed to "I influence others with my excitement and enthusiasm." Seven questions remained unchanged. Final minor revisions in wording were made based on subsequent discussion with the Dean of Students and two undergraduate students familiar with the leadership framework.

Student–LPI

The pilot version of the Student–LPI, modified to reflect the language and context of student and college experiences, consisted of 30 descriptive statements paralleling those found in the original LPI. Various analyses have demonstrated the LPI to have sound psychometric properties. The factor structure was quite consistent with their conceptual framework; test-retest as well as internal reliabilities were high, and predictive validity assessments very reasonable (Posner & Kouzes, 1988). Each of the five leadership practices was assessed by six items on the LPI, each measured using a 5-point Likert-scale (with 1 being *rarely* or *not very frequently* and 5 representing *almost always* or *very frequently*). The statements focused on leadership behavior and on the frequency with which the person engages in the particular behavior.

The Student Senate served as the test site for studying the pilot Student–LPI. This group represents the elected student governing body, with members from all four classes as well as on-campus and off-campus participation. At the end of one of their weekly meetings, student senate members were asked to participate in the pilot study. Nineteen student leaders agreed to participate (79% response rate) on a voluntary and confidential basis. This sample included 7 men and 12 women, approximately equally divided between the four college class years.

After completion of the pilot Student–LPI, an item-by-item discussion was conducted with the group to identify if any test items were ambiguous, confusing, or not applicable to their experience as student leaders. The discussion was tape recorded. Of the 30 test items, 25 (83%) were unanimously considered clear and understandable, using terminology and concepts that were within students' and student leaders' experience. Ways to improve (revise) the somewhat problematic remaining items were discussed with this group of student leaders.

Based on the recommendations from the pilot test respondents, the potentially problematic statements were rewritten. Five student leaders (three men and two women) who had not been involved with any of the earlier Student–LPI efforts were invited to participate in a focus group discussion of the revised Student–LPI. These student leaders were selected to represent a variety of campus organizations (e.g., student government, public service, club, and so forth). After individually completing the Student–LPI, they discussed with the researchers every test item—searching for agreement about meaning and the item's potential ability to differentiate, in their experience, between effective and ineffective student leaders. Based on this discussion, minor editorial changes were made in the instrument. Returned again to this group for any further feedback, the instrument was approved without modification.

STUDY OF EFFECTIVE STUDENT LEADERS

Participants

The sample consisted of chapter officers of a national fraternity on 100 college campuses across the United States. One national fraternity was selected in order to minimize the potential effects of varying national policies and procedures on local operations. Presumably all of these chapters (organizations) were structured and organized in similar fashions, following nearly identical standard operating procedures and having available the same set of support services to the chapter and officers. The idea of selecting chapters from more than one campus minimized the potential effects of any local campus policies and procedures and extraordinary successful or ineffective student support services available. Both of these sample characteristics maximized the potential ability to generalize any relationships discovered. The choice of the particular national fraternity organization was somewhat arbitrary, but the fraternity is one of the top five national organizations in terms of chapters on college campuses. Their chapter services operation seemed fairly typical of the largest national fraternity organizations in both size and scope.

Each chapter president received a letter from the Director of Chapter Services in the national headquarters and the Educational Foundation Director requesting their participation and explaining the purpose of the study. The president was asked to complete the LPI–President survey and to distribute a copy of the LPI–Executive Committee survey to each of his executive committee members (five people). The LPI–Executive Committee survey items parallel those on the LPI–President survey but address perceptions of the chapter president's behavior (and not their own).

All participation was voluntary and confidential, both within the chapter and with the headquarters directors. Surveys were returned directly to the researchers. Sixty-five chapter presidents (65% response rate) returned surveys, and usable surveys were returned by 239 executive committee members (48% response rate).

Surveys were distributed at random to executive committee members rather than to chapter members for two reasons. First, executive committee members were expected to be more knowledgeable about the actions of the chapter president than would be members at-large within the chapter. Second, given the nature of fraternity chapter operations, these executive committee group members were generally the people the chapter president had to be most successful at influencing (leading).

The choice of fraternities as the sample population excluded women from this phase of

the validation process. Few systematic differences, however, had been found between men and women with the original (nonstudent version) of the instrument, and there was no reason to believe that this would be an issue with the student version of the instrument. Women had been involved in all of the earlier stages of instrument development, and during these efforts no significant differences were observed between their experiences and those of men. Furthermore, although studies of differences between men and women persist, the literature suggests little support for a relationship between sex and leadership. Powell (1989), in reviewing this literature, pointed out that gender fails to account for differences between the leadership behaviors of men and women, and he concluded, "Results suggest the lack of a sex difference in the effectiveness of actual leaders" (p. 158). The authoritative *Stogdill's Handbook of Leadership* (Bass, 1981) makes a similar conclusion in its chapter on women and leadership.

Effectiveness Measure

Determinations about how to assess chapter president effectiveness were made based on discussions with fraternity headquarters directors, student personnel professionals (including fraternity and sorority advisers), and several undergraduate chapter presidents (not involved in the study). Effectiveness was measured by 10 questions (see Table 1), included on the survey following the LPI. Two of these questions dealt with the president's effectiveness in meeting the chapter's objectives, as viewed by the chapter members and again as viewed by faculty and campus administrators. The president's success at representing the chapter to faculty and administrators was assessed along with his effectiveness at representing the fraternity to alumni. One question asked about the extent to which the president had developed a strong sense of teamwork and cohesion among the membership; another focused on the president's ability to get people in the chapter to volunteer for responsibilities; and a third questioned his effectiveness at getting people to care about the chapter and its objectives. The president's impact on the chapter was assessed by asking, "When this school year is over, the brothers will be able to talk about the difference he has made in the chapter." Finally, one question asked how well the president worked with the Greek adviser on

TABLE 1
Factor Analysis of Effectiveness Questions

	Factor Scores	
Questions	Internal Effectiveness	External Effectiveness
The brothers view him as effective in meeting the chapter's objectives.	.740	.341
He has developed a strong sense of cohesion and team spirit within the chapter.	.813	.309
When this school year is over, the brothers will be able to talk about the difference that he made in the chapter.	.754	.188
He is effective at getting the brothers to care about this chapter and its objectives.	.853	.192
He is able to get other people in the chapter to volunteer for responsibilities.	.773	.244
Faculty and administrators on campus view him as effective in meeting chapter and fraternity objectives.	.217	.818
He is successful at representing our fraternity to faculty and administrators.	.262	.807
He is successful at representing our fraternity to alumni.	.361	.565
He makes good use of student government and IFC learning opportunities.	.276	.658
He works well with the Greek adviser.	.138	.790

Note. Responses were from only executive committee members regarding their chapter president's effectiveness. The order of these questions was random.

campus and another about how well he made use of student government and interfraternity council learning opportunities. Respondents indicated the extent to which each of these statements was descriptive of the chapter president using a 7-point Likert-scale (ranging from 1 = *not at all descriptive* to 7 = *all the time descriptive*). In addition, a single global effectiveness question was asked ("Overall, he is a good chapter president").

A factor analysis of this scale revealed two factors, as shown in Table 1. Factor 1 dealt with *internal* effectiveness and included items about meeting chapter objectives from the member's perspective, developing cohesion and team spirit, getting people to care about the chapter and volunteer for responsibilities, and making a difference in the chapter. Encompassing *external* effectiveness, Factor 2 included items about meeting chapter objectives from the faculty and administration's perspective, representing the chapter successfully on campus and with alumni, working well with the Greek adviser, and making good use of student government-type learning opportunities. Internal reliabilities for each of these effectiveness factors or scales as measured by Cronbach's alpha were strong (.88 for internal effectiveness and .83 for external effectiveness). Each effectiveness scale was significantly correlated with the single-item global effectiveness scale ($r=.80$ for internal effectiveness and $r=.57$ for external effectiveness, both $p<.001$).

Respondent Characteristics

A few demographic questions were asked about the respondents: year in school, age, grade point average, and major. This information is summarized in Table 2 for both chapter presidents and executive committee members. The typical chapter president was in his junior year, about 21 years old, with a 3.0 (B) grade point average. Executive committee members were somewhat younger than the chapter presidents. There were, however, no statistically significant differences (chi-square analysis) based on demographic characteristics between chapter presidents and executive committee members. The responses from executive committee members were used to measure the chapter president's effectiveness (as well as leadership practices). This seemed appropriate to minimize any self-report biases associated with chapter presidents' perspectives.

TABLE 2
Demographic Characteristics of Chapter Presidents and Executive Committee Respondents

Demographic Characteristic	% Chapter President	% Executive Committee
School Year		
Freshman	0	2
Sophomore	12	32
Junior	58	50
Senior	30	16
Age (in years)		
18–19	8	14
20	33	44
21	38	30
22	16	8
23+	6	4
Grade Point Average		
<2.5	25	20
2.5–3.0	36	43
>3.0	39	37
Major		
Business	32	45
Engineering	14	17
Physical Sciences	8	10
Social Sciences	26	15
Humanities	20	13

RESULTS

The correlations between the chapter presidents' leadership behaviors—challenging, inspiring, enabling, modeling, and encouraging—as viewed by their executive committee members and the latter's assessment of the chapter president's effectiveness are shown in Table 3. Statistically significant ($p<.001$) correlations were found between all five leadership practices and both internal and external effectiveness. Results of t tests of differences between effective and less effective leaders, based on executive committee members' assessments (median split on combined internal and external effectiveness measure) revealed significant ($p<.001$) differences on every dimension (also shown in Table 3).

Combining the five leadership practices as independent variables in a regression equation, with internal effectiveness as the dependent variable, resulted in a multiple $R=.79$ or adjusted R^2 of .62 ($F=93.14$, $p<.001$). With external effectiveness as the dependent variable, the multiple R was .62 (adjusted R^2 of .37; $F=35.66$, $p<.001$). Explained variance (adjusted R^2) was .65

TABLE 3

Correlations With Leadership Practices and Effectiveness and *t* Tests on Leadership Practices by Effectiveness

Leadership Practice	Correlations With Effectiveness		Chapter President Effectiveness (Others)			
			Low		High	
	Internal	External	M	SD	M	SD
Challenging	.73	.55	20.7	(3.6)	24.9	(2.9)
Inspiring	.70	.53	21.1	(4.4)	25.8	(2.8)
Enabling	.64	.50	22.3	(4.2)	26.2	(3.0)
Modeling	.73	.58	20.7	(3.6)	25.0	(2.8)
Encouraging	.66	.55	21.5	(4.1)	25.9	(3.0)

Note. All correlations $p<.001$. All *t* tests between mean scores were statistically different at $p<.001$.

($F=87.12$, $p<.001$) when internal and external effectiveness were combined as a single dependent measure of effectiveness. This regression analysis, along with the correlations and *t* tests, confirms the major hypothesis of the study, namely that effective versus less effective student leaders vary in their leadership practices as measured by the Student–LPI.

Table 4 presents the *t* tests between chapter presidents only on the basis of their self-reported effective assessments (mean split on effectiveness for high and low groupings). These results parallel those provided earlier by their subordinates (executive committee members). The lower levels of statistical significance are due to the smaller sample sizes.

Internal reliability coefficients are also presented in Table 4. These ranged from .62 to .76 for chapter presidents and from .76 to .84 for executive committee members. Internal

reliability coefficients ranged between .73 and .83 when these two samples were combined.

DISCUSSION

Because this study examined the student version of the LPI, it is useful to explore several other relationships. First, the self-perceptions of student leaders were not significantly different from those of their executive committee members (subordinates). These results are shown in Table 4.

This finding is not consistent with studies of leaders in business and the public sector (Posner & Kouzes, 1988), where leaders' self-perceptions are significantly higher than those provided by their subordinates. Nevertheless, the perceptions of students (both chapter presidents and executive committee members) did tend to be higher on average than those of their counter-

TABLE 4

Effectiveness of *t* Tests for Chapter Presidents and Between Chapter Presidents and Executive Committee Members

Leadership Practice	Chapter President Effectiveness (Self)				Chapter President		Executive Committee	
	Low		High					
	M	SD	M	SD	M	SD	M	SD
Challenging	20.6	(2.6)	23.8	(3.0)***	22.5	(3.3)	23.0	(3.6)
Inspiring	22.1	(3.9)	24.0	(2.8)*	23.2	(3.6)	23.6	(4.3)
Enabling	23.9	(3.4)	25.5	(2.6)*	24.8	(3.6)	24.4	(4.1)
Modeling	21.0	(2.9)	24.1	(2.9)***	22.7	(3.3)	23.0	(3.9)
Encouraging	23.2	(2.9)	25.2	(3.0)**	24.3	(3.1)	23.9	(4.2)

Note. None of the *t* tests between mean scores of chapter presidents and executive committee members was statistically significant.
$^*p<.05$. $^{**}p<.01$. $^{***}p<.001$.

parts in private and public sector organizations. Obviously more research is needed to determine the implications of this finding: Do students engage more frequently in leadership behaviors than do managers in organizations, or do they just use a different standard in assessing their frequency? Another possibility might be the basic character of the organizations studied (fraternities), which by their nature (social collections emphasizing brotherhood), promote close cooperative relationships between leaders and their constituents. Consequently, without normative data on the Student–LPI, caution should be exercised in comparing the quality of student leadership with that outside the student organizational setting. To most effectively use the Student–LPI, data should be collected from other members of the student's organization to gain a better picture and deeper understanding of the individual's leadership practices in use.

Based on the data presented in Tables 3 and 4, the variance around the leadership practices of less effective student leaders is greater than that associated with effective student leaders. This finding is open to several possible interpretations. Perhaps respondents are simply clearer about the behavior of effective leaders than they are about less effective leaders. Another possibility is that effective leaders behave with greater consistency across their constituents than do less effective leaders (which explains the increased clarity in the minds of others). Alternately, because they are not very effective, students leaders may find themselves having to engage in a greater variety of behaviors across their constituency base than is required by leaders who are effective. All of these interpretations are open to further empirical investigation.

Although both men and women were included in the process of developing the Student–LPI, the study relating leadership practices with effectiveness involved only men (and a men's organization). Subsequent research involving women is required to ascertain empirically whether any gender biases exist in the Student–LPI. Further instrument development efforts may also be warranted to enhance the internal reliability for the leadership practices scales.

Colleges and universities have a vital role to play in the development of future leaders. Although it is laudable that they have provided increased opportunities for students to become involved, it is essential that student personnel administrators more systematically assist students in developing the skills and competencies necessary to become effective (student) leaders. Leaders-in-the-making, asserted Miller and Jones (1981), require feedback on their leadership behaviors and some reliable method to assess their leadership development. The Student–LPI may go far toward meeting these needs.

The Student–LPI provides a means by which students can conceptually understand their leadership responsibilities *and* translate and apply this framework in practical (do-able) personal behaviors and actions. Armed with this information, student leaders, and those working with college students, can more easily diagnose conceptual misunderstandings of leadership role requirements and behavioral opportunities to make a difference. The Student–LPI can help identify and specify areas for cultivating the personal skills necessary to be an effective student leader. In student development workshops, the Student–LPI might also be used to measure and assess the extent to which individual student leaders have made progress in enhancing their leadership capabilities. Overall, the Student–LPI holds promise in the development of leadership skills among college students.

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