TESTING A MODEL OF PROGRAM CURRICULUM LEADERSHIP

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This study tests the curriculum leadership framework that Stark and Lattuca adapted from Quinn's model of management styles. Chairpersons of departments nominated as effective in curriculum planning answered a survey about their leadership activities and styles. Factor analysis partially supported the model. Activities that chairs reported did not correspond well, however, with leadership styles they chose as most effective.

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INTRODUCTION

In light of recent critiques and advancing technology, colleges are attempting to develop greater capacity for improving academic programs. Informed and energetic faculty leadership is needed to improve plans for student learning and to respond to accountability demands. Until recently, however, little information has been available to guide faculty department leaders in the key role of curricular planning—the very heart of the educational enterprise. Several recent books (Hecht, Higgerson, Gmelch, & Tucker, 1999; Leaming, 1998; Lucas, 1994; Tucker, 1992) have made recommendations about the role of the department chairperson in colleges and universities. These authors discuss curriculum leadership but give it only slight attention relative to other topics such as personnel management and legal issues. This lack of attention accords with the results of numerous surveys conducted from 1953 through 1997, which report that department chairpersons have a wide variety of managerial duties, ranging from per-

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sonnel to budgeting and public relations, but spend little of their time leading curriculum planning (Stark and Briggs, 1998).

When discussing department academic leadership, various writers have declared different emphases to be most important. In the foreword to a recent book for department chairs (Hecht et al., 1999, p. viii), Marchese stresses personnel management as the most important role for the chair. Lucas (1994) emphasizes team-building as most crucial, and her discussion has a collegial and flexible tone. Similarly, Hecht et al. stress that the chairperson must "create a dynamic collective culture." In terms of general leadership style, Tucker (1992) discussed at length how such a culture might be created. He noted that chairs can engage in either "directive behaviors" or "supportive behaviors" (p. 64) and may bring about change through either a "participative model" or "power model" (p. 80). When he discussed curriculum, however, he seemed to imply, perhaps accidentally, that the chair should play a directive mode. For example, he stressed the importance of scheduling courses and assigning faculty workloads equitably and, in fact, he titled the chapter "curriculum management" rather than "curriculum leadership." Those who have espoused the supportive, collegial, participatory models have less often enumerated what activities, related to curriculum leadership, build upon the collegial culture once it is created.

In a recent book on the college curriculum, Stark and Lattuca (1997) devoted a chapter to curriculum administration and provided guidelines for chairpersons seeking to lead without managing excessively. They suggested that Quinn's "competing values model," a typology of management styles (Quinn, 1988; Quinn, Raerman, Thompson, and McGrath, 1990), could be a useful framework within which to examine curriculum leadership and administration in academic departments. They judged the model useful because it has two primary dimensions— an internal-external focus, paralleling the many internal and external influences on curriculum planning, and a flexibility-control dimension (reminiscent of Tucker's participative and directive dimensions), which can capture the tension between faculty need for autonomy in curriculum planning and the organizational unit's need for coordination to ensure accountability to sponsors and society (Stark and Lattuca, 1997, p. 315). Based on these two dimensions, Quinn's model, shown in Figure 1, produces four quadrants, each encompassing two somewhat related managerial roles: a flexible/internal focus (human relations—mentoring, facilitating), a control/internal focus (internal process—monitoring, coordinating); a control/external focus (rational goal model—producing, directing); and a flexible/external focus (open systems—innovating, brokering). According to Quinn, within the flexible/internal quadrant, the mentor engages in the development of people with care and empathy; the facilitator fosters collective effort to build cohesion and teamwork. Within the control/internal quadrant, the monitor ensures compliance, tracks progress, and analyses results; the coordinator maintains order, structure, and flow of the system. Much of the literature that has
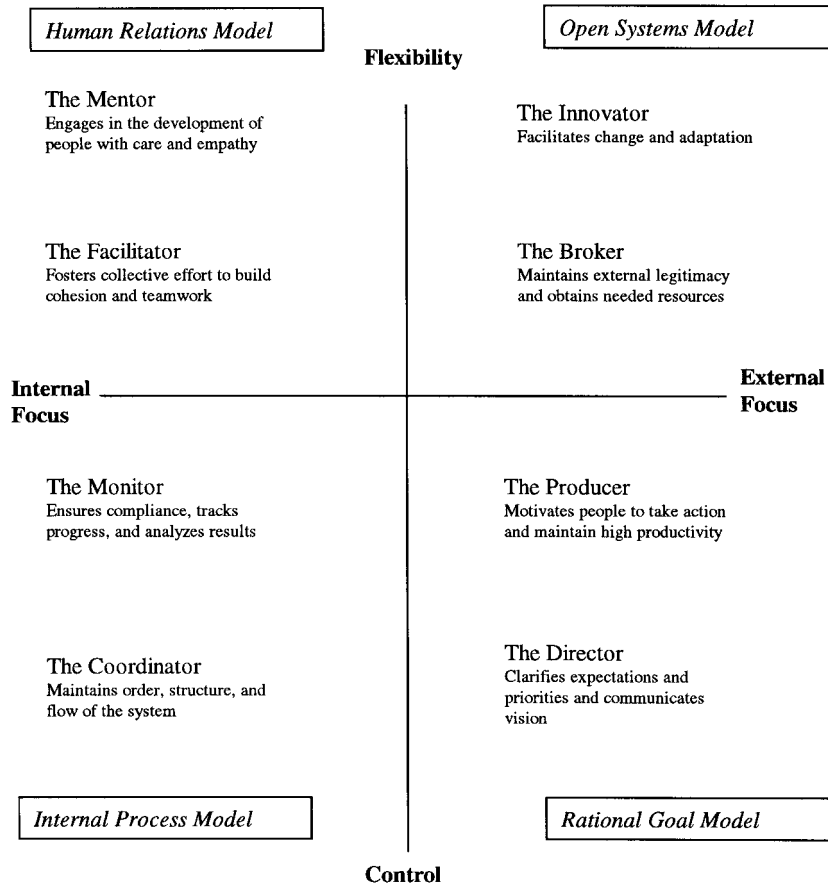
Human Relations Model		Open Systems Model

Flexibility

The Mentor
Engages in the development of
people with care and empathy

The Innovator
Facilitates change and adaptation

The Facilitator
Fosters collective effort to build
cohesion and teamwork

The Broker
Maintains external legitimacy
and obtains needed resources

Internal Focus ———————————————————— **External Focus**

The Monitor
Ensures compliance, tracks
progress, and analyzes results

The Producer
Motivates people to take action
and maintain high productivity

The Coordinator
Maintains order, structure, and
flow of the system

The Director
Clarifies expectations and
priorities and communicates
vision

Internal Process Model		Rational Goal Model

Control

FIG. 1. The Competing values model: Eight managerial roles
Source: Adapted from *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance* by Robert Quinn. Copyright 1988 by Jossey-Bass, Inc. Reprinted by permission of Jossey-Bass, Inc., a subsidiary of John Wiley & Sons, Inc.

been written about the department chairperson's role emphasizes the internal roles, especially the facilitator, coordinator, and mentor roles.

In the control/external quadrant, Quinn noted the producer who motivates people to take action and maintain high productivity and the director who clarifies expectations and priorities and communicates vision. In the flexible/external quadrant, he included the innovator who facilitates change and adaptation and the broker who maintains external legitimacy and obtains needed resources. The early prescriptive literature paid only modest attention to the external roles of

the department chair, perhaps because they differ substantially for different disciplines and types of institutions. Recently, however, as external influences on higher education have strengthened, these roles have been considered more important. In their advice for chairpersons, Hecht et al. (1999) devote nearly a fourth of the book to a section dealing with "connecting with audiences beyond the department."

Stark and Lattuca (1997, pp. 314–335) discussed each of the four quadrants of the Quinn model, and, based on experience and existing literature, they listed specific activities of the curriculum leader that they judged consistent with each of the eight managerial roles. For each role they presented logically consistent and intuitively appealing guidelines for administrators as they undertake curriculum leadership activities. Rather than advocating any particular role, however, they maintained that "the most effective and efficient curriculum administration occurs when those with the broadest responsibility provide balanced oversight of the internal, organizational, and external conditions that influence academic plans but reserve the major role in its development for those closest to implementation of the academic plan" (p. 315).

Quinn's model was developed for business settings rather than for academic settings. Thus, despite the face validity of Stark and Lattuca's guidelines, no study has determined if the curriculum leadership roles derived from Quinn's model actually are carried out by department chairpersons or whether it is possible to distinguish among the roles in the academic setting. Consequently, the research questions I posed for this study were: Do department chairpersons self-report the specific activities and roles suggested by Stark and Lattuca? How do their activities and roles relate to Stark and Lattuca's interpretation of Quinn's theoretical model? Which roles or combinations of roles do chairpersons judge to be most effective in leading curriculum planning?

METHOD

By studying departments that, by other criteria, seem to be effective in curriculum planning, I explored whether Stark and Lattuca's (1997) interpretation of Quinn's model represents recognizable leadership roles in academic departments. My method was a survey designed to provide two separate measures of leadership activities, each based on department chairpersons' reports. To derive one measure, I wrote Likert-type survey items describing activities a department chairperson might perform in providing curricular leadership. These items were intended to tap the four quadrants of the Quinn model as translated into guidelines for academic leadership by Stark and Lattuca. To derive the second measure, I wrote four paragraphs, each of which blended key items from the Likert-type items into a narrative form intended to represent a "curriculum leadership style."[1] Chairpersons completing the survey were asked to report how frequently they performed each activity and to rank order the leadership "styles" according

to their perceived effectiveness. They were also asked to report which style they most often used and to provide an explanation if their own style was not the one they judged most effective. Comments were invited in each section of the survey to solicit further information from the chairpersons. Finally, the survey collected demographic information that described the responding chairpersons, their departments and disciplines, and their institutions. Data analysis was designed to ascertain through factor analysis whether the survey items recording frequency of activity produced dimensions congruent with the paragraphs describing styles of leadership and/or with the four quadrants of Quinn's model.

Sample

Considerable empirical evidence indicates that many department chairpersons do not take a purposeful leadership role with respect to curriculum. Hecht et al. (1999) state baldly that departments where the chairperson has created a "dynamic collective culture" are "more the exception than the rule" (pp. 117–118). I wished to find such exceptions in order to document the potential roles among department chairpersons who are most likely to be purposeful leaders. Thus, to avoid repeating earlier studies that suggest limited curriculum leadership, I used a two-stage sampling process to obtain a sample of chairpersons of "continuously planning" departments, those that may be more involved than most in continuous, collaborative, and information-based planning as a typical practice. First, I drew a 30% stratified random sample of institutions ostensibly large enough to employ at least seven full-time faculty members in most departments: Carnegie Classifications Research I and II ($N = 36$), Doctoral I and II ($N = 32$), Masters I ($N = 139$), and Associate of Arts ($N = 225$).[2] By mail with a telephone follow-up by an assistant, I invited the chief academic officers (CAOs) at these 207 4-year and 225 2-year colleges to nominate academic departments that are especially effective in conducting continuous planning for their undergraduate curricula. The CAOs indicated whether the department matched one or more of seven possible indicators I supplied based on a definition of especially effective departments derived from relevant literature. Through these procedures, I developed a pool of 429 departments from 137 institutions that appeared to meet the criteria.[3] Table 1 shows the number of institutions approached and the number of nominations obtained in each stratum.

Many vice presidents ($N = 151$) who did not make nominations shared their reasons in writing or by phone. They frequently mentioned one of these reasons: no departments met the criteria; departments that met the criteria were not large enough; or major reorganization or academic overhaul was preoccupying the institution making it a poor time to join a study. The lowest percentage of nominations was received from associate of arts institutions (21%) and the highest percentage from research universities (64%). In general, vice presidents nominated three to four departments; very few nominated as many as six, the maximum I suggested.[4]

**TABLE 1. Distribution of Institutions Approached for Nominations
and the Number of Nominations Received by Institutional Type**

Type of Institution	Invited	Made Nominations	Number of Departments Nominated
Research I and II	36	23	99
Doctoral I and II	32	12	43
Masters I	139	55	195
Associate of Arts	225	47	92
Total	432	137	429

The standards used by the academic vice presidents undoubtedly varied, and not all the nominated departments may be exemplars of effective curriculum planning.[5] Still, the chairpersons surveyed are more likely drawn from such a group than a purely random sample would have been. Their varying situations provided interesting contexts in which to examine active leadership roles of chairpersons.

Instrument

Based on Quinn's model and Stark and Lattuca's (1997) suggested activities for department chairpersons, I constructed a survey of curriculum leadership activities in undergraduate programs. The steps in developing the survey instrument included: (1) developing over 50 items that might tap Stark and Lattuca's interpretation of the four quadrants of Quinn's model; (2) refining the wording of the items and instructions, reducing redundancy in the item pool, and adjusting the response categories and question order; (3) reexamining the face validity of the items with respect to Stark and Lattuca's interpretation of the quadrants of Quinn's model; and (4) conducting several pilot tests of the proposed survey instrument with current and recent department chairpersons not in the sample. I developed the item pool, made the final decisions about item inclusion, and conducted the pilot tests. Two collaborating doctoral students tested clarity of item wording with small groups of individuals and independently judged face validity of items and descriptions. The resulting instrument is described below.

Section A

Thirty-seven items describing activities a department chairperson might perform in providing curriculum leadership comprised Section A. Respondents answered twice for each activity: (1) How frequently do you carry out this activity? (never, rarely, sometimes, often, very often), and (2) How well prepared

are you to carry out this activity? (not at all prepared = 1; very well prepared = 5). Two nonclassified items were intended to provoke extreme responses and were introduced deliberately to check on response bias. Because of the theoretical importance of the control/flexibility dimension in the Quinn model, I tried to write items so that they would convey an internal activity (e.g., whether personnel are adequate to staff a curriculum proposal) or external activity (e.g., identifying recent technological advances that have potential use) and also imply either a controlling or flexible approach by the chair. For flexibility, I used words such as "encourage," "assist," and "support," implying that the chairperson was working with and for the faculty. For control, I used terms that might imply a stronger managerial stance, such as "determine," "establish," or "ensure."

Section B

I wrote four paragraphs, each intended to represent a style of leadership for curriculum planning corresponding to one of the quadrants in Quinn's model. Essentially, these paragraphs blended key items from Section A into a narrative form. Respondents were asked to rank the four styles from 1 = most effective to 4 = least effective. Second, they were asked to choose the style they most often use as a department chairperson. If their own leadership style was not the one they judged to be most effective, they were asked to describe what caused the difference. The styles are shown in Table 2.

Finally, questions in the survey collected demographic information that allow me to describe the responding chairpersons, their departments and disciplines, and their institutions.

Response

The survey was mailed with a cover letter, a project description including biographical sketches of the research team, a request to return it anonymously within 3 weeks, and a separate post-paid postcard to indicate return of the survey. After two follow-ups, I obtained a return of 316 surveys for a response rate of 76.5%, distributed by institutional type in the same proportion as the survey sample. The chairpersons responding were mostly full professors holding doctoral degrees. Their average age was 52 years; 38% were female and 62% were male. Faculty unions were present on 36% of the campuses. Since a very diverse group of departments was included, I classified them in seven groups. These included the traditional tripartite division of liberal arts fields into humanities, social sciences, and science/mathematics, and the fourfold division I recently proposed for professional education fields (Stark, 1998). Social science fields and artistic fields were slightly underrepresented among the responses while, enterprising fields (business, engineering, agriculture) and information services

TABLE 2. Paragraphs Combining Activities into Leadership Roles or "Styles"*

Style A   The chairperson emphasizes the responsibility of faculty for curriculum planning. S/he encourages faculty members to develop curriculum planning skills and supports them in these efforts. S/he fosters extensive faculty discussion and teamwork in developing curriculum and gathers information to support the planning process. S/he may or may not agree with specific curriculum proposals, but tries to attain faculty consensus when decisions are made and then communicates and supports the decision.

Style B   The chairperson emphasizes his/her responsibility to coordinate the process of curriculum planning. S/he establishes clear planning guidelines, assigns faculty members to leadership roles, and sets timelines for the curriculum planning process. S/he assesses whether the alternatives the faculty are considering are feasible with existing resources, fosters faculty discussion of the proposed alternatives, and evaluates the results of decisions.

Style C   The chairperson strongly encourages faculty members to take curriculum leadership, but s/he also takes an active role. S/he frequently clarifies the department mission and suggests future visions and priorities for the department. High productivity in all academic endeavors is a key priority. S/he often attends conferences and meetings to obtain and share new information in curriculum development, teaching and learning, and student assessment and encourages faculty to do the same. S/he finds ways to reward faculty who lead and contribute to the curriculum development effort.

Style D   The chairperson supports and encourages regular curriculum change and adaptation. S/he keeps abreast of trends in the field and external conditions affecting the department and proposes specific scenarios for future curriculum changes. On campus s/he emphasizes the importance of maintaining credibility for the department. S/he establishes connections within the college or university and seeks collaboration with other departments in order to negotiate approvals of new and innovative programs as well as the needed resources to sustain them.

*The quadrants of Quinn's model are identified here for the reader but were not identified for survey respondents: Style A = flexible/internal; Style B = control/internal; Style C = control/external; Style D = flexible/external.

(education, counseling, library science) were slightly overrepresented compared to provost's nominations.

ANALYSIS

Leadership Activities

I sought to reduce the set of 37 activities to fewer dimensions in order to compare it with the four dimensions of the managerial role elaborated by Stark and Lattuca (1997). To do so, I factor analyzed the chairpersons' responses regarding how frequently they carried out the activities. Table 3 gives the 37

survey items grouped according to the four-factor solution and also shows the quadrant of Quinn's model in which each item was expected to map. It also reports the mean scores and standard deviations of chairpersons' responses to each item on the questions: "How frequently do you perform this activity?" and "How well prepared are you to carry out this activity?"

In general, activities that chairpersons reported doing most frequently are those that coordinate curriculum planning rather than initiate it, evaluate it, or link it with external constituencies. These activities are also the ones for which they reported feeling best prepared. Many of the activities that chairpersons reported doing least frequently are those concerned with taking leadership in forums outside the institution, expanding their own expertise or that of faculty members in curriculum development, and collaborating or consulting with other departments on their own campuses. The activities they do least frequently are usually the ones for which they report being least prepared.

Some items had sizable standard deviations indicating substantial variation within the sample of chairpersons responding to the survey. Some of this variation may be readily explained by differences among the disciplines or types of institutions. For example, professional/occupational departments obviously are more likely to seek employer input than are liberal arts departments. Likewise, some respondents' comments told us that responses to items about providing rewards and incentives to faculty members were influenced not by choice but by institutional practice or a union contract delimiting the chairperson's authority. In other cases, substantial variation can be explained by variations in financial resources. For example, several chairpersons explained that they and faculty members in their department did not attend conferences because they were not provided funds to do so, or that salary increases are trivial and provide little incentive. Other comments made by a substantial number of chairpersons to explain their answers included the following ideas:

- Administering a multidiscipline department or division reduces the direct leadership of the chairperson in curriculum matters. Relative to disciplines other than their own, chairpersons become coordinators rather than direct participants.
- An overload of duties and lack of time for both chairperson and faculty in many departments contributes to low frequency of many of the activities.
- The department's curriculum development role is limited because the state mandates its curriculum (typically undergraduate or general education).

Leadership Roles

Initial examination of the response distributions showed that about 8 of the 37 activity items were skewed; they had high mean scores and little variance

TABLE 3. Means and Standard Deviations of Items, Loadings of Items on Four Rotated Factors, and Reliabilities of Derived Indices ($N = 316$)

	Expected Quadrant	F1	F2	F3	F4	Frequency Mean	Frequency SD	Preparation Mean	Preparation SD
Factor 1 Coordination. Variance = 13.7%;·* Items = 8; Reliability = .85; Mean = 4.01; Standard Deviation = .59									
14. Determine if financial resources and facilities are adequate for current curriculum needs and proposed curriculum changes	CI	.72				3.99	.93	3.94	.99
15. Determine if personnel are adequate for current curriculum needs and for proposed curriculum changes.	CI	.67				4.20	.80	4.09	.91
17. Assure that approved curriculum proposals have a time line for implementation	CI	.63				4.06	.88	4.05	.90
3. Ensure opportunities for curriculum discussions	FI	.56				4.20	.75	4.19	.82
5. Develop visions for the future and communicate department mission to faculty	CE	.55				4.00	.86	3.94	.91
4. Establish a well-organized system for curriculum planning	CI	.51				3.72	.96	3.78	.99
37. Give high priority to curriculum reappraisal and renewal	FI	.49	.30	.35		3.99	.87	3.99	.88
7. Sense the need and direction for curriculum change and propose changes for faculty consideration	CE	.49				3.92	.76	3.92	.83
Factor 2 Balanced Oversight. Variance = 12.0%; Items = 14; Reliability = .84; Mean = 3.74; Standard Deviation = .54									
18. Encourage and support small-scale trials of proposed curriculum changes	FI		.60			3.57	1.15	3.89	1.03
19. Assign faculty members to be responsible for implementing adopted changes	CI	.41	.59			4.06	.93	4.17	.88
33. Serve as a positive role model in planning and teaching courses	FI		.50			4.13	.82	4.22	.83
25. Express high expectations to faculty members for success in curriculum changes.	CE	.44	.49			4.08	.79	4.04	.84

Item	Type				M	SD	M	SD
28. Appoint strong faculty leaders for curriculum development	CI	.35	.49		3.98	1.00	4.07	.95
26. Initiate new courses or programs to better serve constituents.	CE		.49		3.97	.81	4.06	.86
20. Inform students of rationale for curriculum changes	CI		.48		3.49	1.04	3.95	.98
10. Seek input from other departments about curriculum proposals	FE		.48		3.20	.84	3.70	.98
16. Negotiate for the success of curriculum proposals in campus forums and administrative offices	FE	.40	.48		3.82	.98	3.94	1.00
22. Seek opportunities for the department to collaborate with other campus departments	FE		.46		3.45	.97	3.81	.94
30. Encourage faculty members to expand their repertoire of teaching approaches	FI		.45		3.89	.87	3.86	.94
27. Provide rewards and incentives to faculty members for curriculum development	CE		.44		3.14	1.10	3.34	1.21
32. Clarify the expectations of the college or university to department faculty	CI	.33	.36		4.09	.81	4.07	.86
29. Ensure that newly hired faculty members gain skills in curriculum planning	CI	.31	.36	.32	3.52	.97	3.71	1.04

Factor 3 External Sensing. Variance = 10.3%; Items = 8; Reliability = .81;
Mean = 3.51; Standard Deviation = .68

Item	Type				M	SD	M	SD
6. Attend conferences to learn how others in the field are adapting curriculum	FE			.75	3.19	1.08	3.57	1.09
35. Take a regional or national leadership role in improving undergraduate education in my field	FE			.70	2.90	1.33	3.39	1.26
36. Read materials about teaching undergraduates in my field	FE			.61	3.76	.98	4.00	.94
1. Help faculty members keep abreast of trends that may affect the curriculum	FE	.40		.57	3.80	.78	3.75	.91
9. Seek input from students' potential employers about curriculum proposals	FE		.51	.39	3.09	1.17	3.39	1.19
34. Give public credit to faculty who attend conferences and workshops about curriculum matters	CE		.44	.39	3.87	1.10	4.11	.92

TABLE 3. (*Continued*)

	Expected Quadrant	F1	F2	F3	F4	Frequency		Preparation	
						Mean	SD	Mean	SD
2. Encourage faculty members to improve their skills in curriculum planning	FI	.33		.41	.40	3.45	.97	3.61	.97
31. Identify recent technological advances that have potential use in the curriculum.**	FE	.41		.38		3.99	.85	3.83	.98

Factor 4 Evaluation. Variance = 8.5%; Items = 4; Reliability = .70; Mean = 3.56; Standard Deviation = .72

	Expected Quadrant	F1	F2	F3	F4	Frequency		Preparation	
12. Gather and share data about student achievement to use for curriculum evaluation	CI				.70	3.66	1.01	3.73	1.05
8. Seek input from students regarding curriculum proposals	CI				.61	3.26	.95	3.71	1.00
13. Encourage faculty to develop evaluation and assessment skills	CI				.59	3.68	.97	3.64	.99
11. Establish a regular evaluation cycle for the department's curriculum	CI				.56	3.62	1.07	3.91	.99
Omitted Items									
21. Let faculty follow their own inclinations in curriculum development (Weak correlations with other items)	None					3.42	.89	3.86	.87
23. Join in discussions with other department chairpersons to improve expertise in curriculum planning (Extremely skewed)	FE					3.25	2.93	3.75	.98
24. Follow the curriculum preferences of administrative superiors even if they conflict with faculty views (Weak correlations with other items)	CI					2.29	.87	3.15	1.20

*Total variance 44.58%.

**Item 31 was included on the index for Factor 3 rather than Factor 1.

because most chairpersons do them frequently. The skewed items described many activities consistent with the internal dimension of the model, especially coordinating and facilitating activities: ensuring discussions, ensuring adequate resources, ensuring adequate personnel, assuring timelines, assigning implementers, holding high expectations, and appointing strong leaders. Since discrimination between chairpersons who do and do not perform these activities was not my purpose, I decided to leave these items in the analysis in order to develop realistic factors with these items as key correlates.[6] However, I eliminated one variable (join with other chairpersons to improve one's own expertise in curriculum planning) because its very low mean and small variance indicated that it was an activity very few chairpersons perform. I also eliminated the two items I had included to check response bias (see Table 3). Predictably, responses to these items correlated minimally with all other items.

I subjected the remaining 34 items to principal components analysis.[7] Initially, I extracted seven factors with eigenvalues greater than 1, accounting for 54.6% of the variance. The communalities were low indicating that the items did not have strong common dimensions. The four-factor solution, shown in Table 3 after varimax rotation,[8] accounted for 45.6% of the variance. I called the first factor Coordination since it consisted primarily of items written to tap the control/internal dimension that Quinn also called coordination. I called the third factor External Sensing. The items that loaded on it were primarily those I had written to tap the flexible/external quadrant. I called the fourth factor Evaluation. It also was consistent with the control/internal dimension and akin to the role Quinn called monitoring. It was much more difficult to find an appropriate name for the factor derived second. Items loading on this factor were of a managerial nature but represented all four dimensions of the Quinn model. They included both those that were written to emphasize controlling or directive activities the department chairperson might undertake as a decision maker and those that emphasized a more flexible facilitating and participative role. Although it included activities with an external focus, this second factor was distinguished from External Sensing by greater concern with matters outside of the department itself but within the college or university. After consultation with colleagues, I decided to call this factor Balanced Oversight because it seemed to integrate and synthesize many aspects of administration. This name echoes the words of Stark and Lattuca (1997; cited earlier in this article) when they discussed the importance for curriculum leadership of all four of Quinn's quadrants.

I examined the saved standardized factor scores, which are by definition orthogonal and uncorrelated, but I also created indices by averaging respondents' scores on the items that loaded greater than .35 on each factor. Relevant comparisons were consistent for the factor scores and indexes. However, indexes of high loading items allow calculation of internal reliability and are more easily used and interpreted by chairpersons who might desire to rate their own activi-

ties using these four dimensions. The correlations of the indexes with the relevant saved factor scores were above .80, but the indexes were also strongly related to each other with the correlations among them ranging from .54 to .72. This indicates that although the indexes had modestly high internal consistency (from .70 to .85), these measures of frequency of chairpersons' leadership activities do not represent strongly distinct dimensions. A summary of characteristics of the indexes for the four-factor solution is shown in Table 3. In terms of mean scores, Coordination and Balanced Oversight are the roles most frequently played by chairpersons; Evaluation and External Sensing activities are somewhat less frequent.

Leadership Styles

Which of the four leadership styles do chairs of continuously planning departments view as most effective in curriculum planning? Table 4 shows the percentage of chairpersons in the sample who chose each of the leadership styles as most effective and the percentage who said they actually used each style. Because some respondents preferred to make comments rather than to select a style, 8.2% of the responses were missing. The greatest percentage of chairpersons chose Style C as the most effective style; fully 72% ranked Style C as either most effective or second most effective. Of the respondents, 65.8% said their style was also the one they viewed as most effective and 23.7% said that they used a style they had not identified as most effective. For those respondents with complete data ($N = 280$) I found no significant differences on a variety of personal and institutional characteristics (age, years of teaching, years at this college, years of noneducation work, years of department administration, years of other administration, and unionization of faculty) between chairpersons who reported that their chosen style matched the style they used and those for whom the two did not match.

I asked the chairpersons to comment on these styles and, if applicable, to

TABLE 4. Leadership Style Chosen as Most Effective

Style	Frequency	Percent Who Chose Style as Most Effective	Percent Who Actually Played This Role
Style A (Flexible/internal)	72	22.8	26.9
Style B (Control/internal)	35	11.1	16.1
Style C (Control/external)	137	43.4	36.7
Style D (Flexible/external)	46	14.6	15.2
Missing	26	8.2	4.7

explain why they used a style other than the one they viewed as most effective. This section of the survey, in particular, provoked considerable comment. The chairpersons stressed teamwork and consensus building as key components of leadership. Many chairpersons commented that all of the styles, or some combination of them, can be effective depending on the department and institutional culture, as well as on the particular talents and capabilities of the chairperson and the department faculty. The comment below seems to sum up many of the others:

> This was a very difficult choice (which I think you know). Most likely I would characterize my preference and how I perceive myself as a leader by choosing specific factors from each of these groupings/styles. None of these styles is really that negative or least effective. There are elements in each which contribute to an overall effective leadership style.

Others suggested that no one style is most effective in all circumstances, even in the same department. The following comments are illustrative:

> Adaptability is the key and leadership style must change to keep the process going most effectively.

> The skill is knowing which of the four styles is needed at what point in time.

Institutional differences cropped up as well. Several chairpersons commented as this one from a large university: "Faculty do not typically think about curriculum development in our setting. The focus is research and the chair is in a position of begging them to do curriculum development."

A substantial number of chairpersons indicated that the leadership styles they use were dictated by union contracts that seemed to provide "limited (or no) power and opportunity to assume the level of leadership in style C." Others commented:

> It's difficult for me (in a union environment) to take a major role in matters that faculty perceive to be under their control.

> Faculty union roles interfere with effective faculty assignments.

Some of those who expressed such opinions declined to choose among the styles, while others made a choice but wrote comments to clarify their views. Others edited the styles to combine them or named a combination of two of the styles as most effective (all possible combinations were chosen by at least one respondent). A few chairpersons noted that Style C should be a goal but is often an elusive one.

Comparing Frequent Activities to Style Choices

If chairpersons responding to the survey chose the paragraph description of a style they believe most effective and most say they actually use that style, one might expect that this style would be closely related to the factor-based indexes derived from their self-reported frequent activities. Yet such a relationship did not appear. The types of activities chairpersons report doing most frequently are coordinating activities (see Table 3), which would lead one to the conclusion that many chairpersons play Style B, emphasizing an internal/control focus. Yet when choosing among the paragraphs very few of the respondents rated Style B as most effective. The expressed preference of chairpersons for Style C, focusing on external sensing, does not accord with the fact that external sensing activities are among activities they perform least frequently. However, Table 5 compares the mean role index scores for the four-factor solution for chairpersons who chose each of the proposed leadership styles. Chairpersons who chose different styles scored similarly on each of three of the indexes created from factor analysis. The exception was the index representing an external role. Those who chose Style C, which had external dimensions, did score significantly higher than the other chairpersons on the External Sensing index.

Limitations

Although the survey results help us document leadership activities and preferences of chairpersons in departments perceived to review their curricula regularly, a number of limitations must be noted. Responses to the frequency section of the survey (Section A) may be systematically biased because asking for preparedness after frequency of behavior may encourage a respondent to justify a low frequency with low preparedness. On the other hand, asking for preparedness before frequency might have encouraged inflation or deflation of the behavior frequency. In order to keep the questionnaire short and reduce redundancy, I chose to risk the first problem, hoping to get the most accurate possible estimate of behavior frequencies. Responses to the style section of the survey (Section B) may be similarly contaminated because the respondent is asked to judge the style descriptions in two ways: his/her own behavior and a desirable or "most effective" behavior, which may provoke a socially desirable response. In this case I chose to ask for the more abstract "most effective" style first, then for the respondents' perceptions of their actual styles since I felt this order would elicit more candid responses from those whose actual style did match the one they believe most effective.

Although the Likert items and their combination into paragraphs had good face validity, I did not have an independent measure of how validly the items or paragraphs represented Stark and Lattuca's interpretation of each quadrant in

TABLE 5. Index Scores of Chairpersons Who Chose Each Leadership Style

Index Sscore Derived from Factor Analysis	Style A (flexible/internal) Is Most Effective $N = 72$	Style B (control/internal) Is Most Effective $N = 35$	Style C (control/external) Is Most Effective $N = 137$	Style D (flexible/external) Is Most Effective $N = 46$	Significance of f Test
Coordination	4.01	4.06	4.03	4.00	ns
Balanced Oversight	3.73	3.67	3.77	3.77	ns
External Sensing	3.44	3.49	3.62	3.30	.03*
Evaluation	3.58	3.48	3.62	3.41	ns

*F test significant at .01.

the Quinn model. In the survey items it is possible that many chairpersons answered the items based primarily on the activity being mentioned rather than on the stimulus that intended to suggest either control or flexibility of leadership approach. This fact may explain why the control/flexibility dimension was indistinct. In addition, although I tried several scales of activity before deciding to ask for frequency of activity, frequency might not be the best measure of leadership because some of the activities, by their nature, are done "frequently" while others occur only a few times a year. The priority chairpersons attached to the activity, or some combination of priority and frequency, might be a better measure. Finally, because the sample was representative of chairpersons who were judged by their academic vice presidents to head especially effective departments, the study may not be generalizable to all department chairpersons. The "typical" chair may perform fewer of these activities or different ones. On the other hand, my intention was to learn more about curriculum leadership, not typical departmental administration.

RESULTS

Do chairpersons of continuously planning departments self-report the specific curriculum leadership activities and roles suggested by Stark and Lattuca? Chairpersons report that they do perform most of these activities quite frequently. The activities performed least frequently are those that require chairpersons to extend their curriculum leadership activities beyond their immediate department or to improve their own curriculum expertise or that of their faculty. This result is not surprising. Department chairpersons traditionally have been more involved in improving their disciplinary expertise than related educational skills.

The Quinn Model—Modest Support

How do the curriculum leadership activities of chairpersons relate to Stark and Lattuca's (1997) interpretation of Quinn's theoretical model? The factor analysis of survey items provided modest support for the Quinn model as adapted for curriculum leadership. Yet the lack of complete congruence is notable. In Figure 2 I have portrayed the similarities and differences graphically by mapping the factors onto the Quinn dimensions based roughly on the number of highly loading items from each a priori group.

Clearly, the control/internal quadrant is well represented in the data by the Coordination dimension (described by Quinn as an "internal process model" that "maintains order, structure, and flow of the system"). It is also represented by the separate Evaluation dimension (called monitoring by Quinn and described as "ensures compliance, tracks progress, and analyzes results"). The flexible/
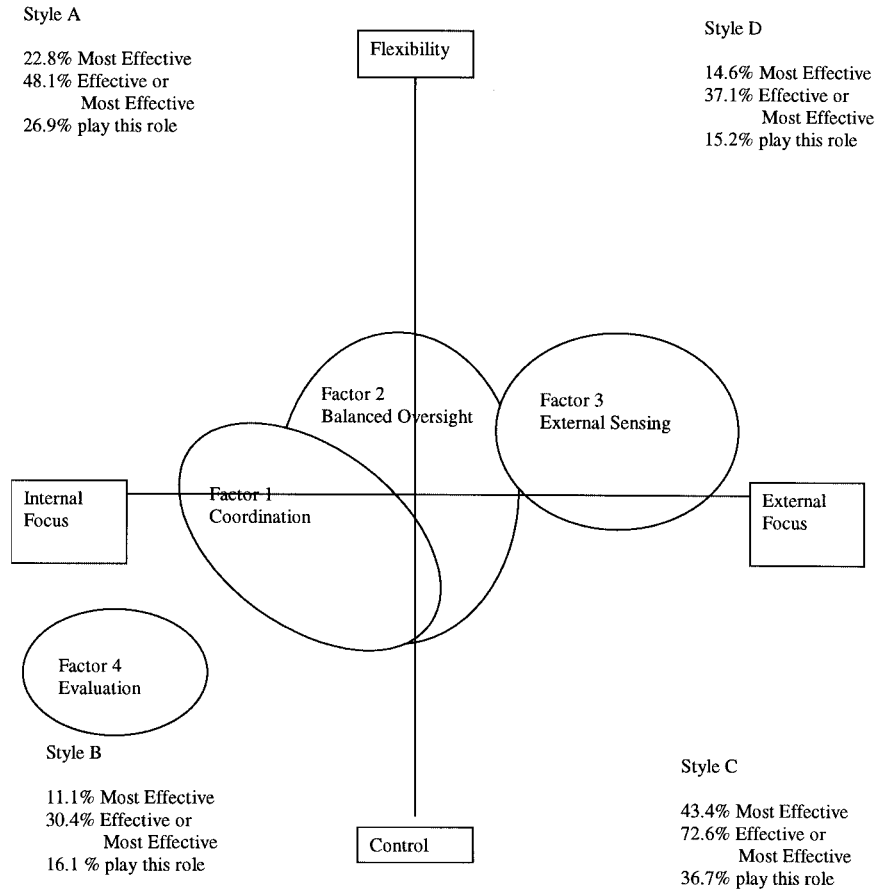
Style A

22.8% Most Effective
48.1% Effective or
        Most Effective
26.9% play this role

Style D

14.6% Most Effective
37.1% Effective or
        Most Effective
15.2% play this role

Flexibility

Factor 2
Balanced Oversight

Factor 3
External Sensing

Internal
Focus

Factor 1
Coordination

External
Focus

Factor 4
Evaluation

Style B

11.1% Most Effective
30.4% Effective or
        Most Effective
16.1 % play this role

Style C

43.4% Most Effective
72.6% Effective or
        Most Effective
36.7% play this role

Control

FIG. 2. Graphic representation of role factors and leadership styles.

external quadrant (or "open systems model") is represented by the factor called External Sensing. This factor captures both the innovator role (described by Quinn as "facilitates change and adaptation"), and the broker role (described as "maintains external legitimacy and obtains needed resources"). Except for the items that loaded on the Balanced Oversight factor, the diagram contains no separate representations of the flexible/internal and control/external quadrants. Thus, the roles Quinn described as mentor and facilitator (flexible/internal—a human relations model) and as producer and director (control/external—a rational goal model) are not represented separately in the dimensions obtained empirically from the set of items posed to chairpersons. As previously noted,

this could result from the way the items were phrased. It seems likely, however, that flexible/internal activities are associated more fully with overseeing the department's personnel relations, which build a climate for curriculum leadership, than with the direct activities of curriculum planning itself.

The dimension that I called Balanced Oversight contains some items that fit in each of the quadrants. In Figure 2 I have shown it as a set of activities surrounding the intersection of the axes and overlapping substantially with the Coordination factor. The items that characterize the Balanced Oversight factor are similar to, but differ slightly from, those that characterize Coordination. Based on the items that load unambiguously on each factor, Balanced Oversight seems to be characterized by some flexibility and some control, by more delegation to faculty members, and by more attention to institutional relations outside the department than does Coordination.

A puzzling result is why the external/control dimension does not emerge as a separate factor. The associated roles described by Quinn are producer, who "motivates some people to take action and maintain high productivity," and director, who "clarifies expectations and priorities and communicates vision." One possible explanation is that external sensing is an ill-defined problem with which chairpersons may have had little experience during their faculty career. It may require new skills and a new orientation compared, for example, with internal department leadership, which is more familiar. Another possible explanation concerns the differences between a faculty group and a business unit. Perhaps in the business context these roles imply a leader who stands apart from followers, is more motivated toward high productivity than they, and who alone is responsible for seeing the broader picture. In contrast, most department chairpersons view themselves first as faculty members, integrated with and having similar perspectives and motivations as their colleagues. Finally, I speculate that chairpersons do play these producer and director roles but in more general ways that include not only curriculum planning but other aspects of teaching, research, and service. Although curriculum planning can be viewed as a distinct activity requiring skilled leadership, it is closely linked with the total range of concerns that occupy faculty and chairpersons in academic departments. Not only are the empirically derived leadership roles of the chairperson overlapping and indistinct, they undoubtedly overlap other aspects of department operations.

Leadership Styles: Perception or Reality?

Which roles or combinations of roles (styles) do chairpersons judge to be most effective in leading curriculum planning, and which styles do they use? To illustrate chairpersons views, I have also shown the four leadership styles in Figure 2.

As written, Style A emphasized a nondirective, facilitative, collective team-

work approach consistent with flexible internal leadership. This style resembles one that many faculty members believe is most suitable in academe. Because of its direct focus on curriculum rather than personnel issues, however, Style A did not fully incorporate the human relations emphasis that Quinn described as the mentor role. Possibly, Style A was infrequently chosen as most effective because chairpersons saw it as not sufficiently comprehensive.

Style B incorporated the more controlling internal focus characteristic of both coordinating and evaluating. Despite the fact that the activities in this description are the ones chairpersons report doing most frequently and that were empirically identifiable as a dimension of their curriculum leadership, very few chairpersons viewed Style B as most effective. It seems possible that the respondents reacted negatively to the controlling tone of this style.

Style C emphasized the external role, with the intended stress on the leader's ideas and behavior in influencing others (control). It described the chairperson as a leader who suggests future visions and clarifies mission and expectations and as a motivator who sets high expectations, acts as a role model, and rewards those who follow this model. This style, although considered most effective by most respondents in the aggregate description, did not emerge as a separate dimension in the factor analysis of frequently performed activities.

Perhaps it is not surprising that many department chairpersons chose Style C as most effective and felt that this was their own style. As written, Style C represented active, visionary, role-modeling activities for the chairperson that may be enhanced by both encouraging and rewarding others, an appealing description for those interested in leading.[9] Although it did not emerge as a separate dimension based on chairpersons' activities, the choice of Style C is consistent with the balance inherent in the Balanced Oversight factor since it juxtaposes attention to an established mission with future vision, high productivity with developmental and "sharing" activities, and encouragement with rewards. It is also consistent with many of the comments that respondents contributed with the survey, especially those that suggested multiple styles are most appropriate.

Style D emphasized a external approach with a flexible tone and with less emphasis on controlling behavior such as rewarding faculty than was included in Style C. Perhaps it captured the dimension of broker better than that of innovator. It definitely lacked the role-modeling and vision-setting emphases of Style C and was considered most effective by far fewer chairpersons.

Style D is well represented in chairpersons' activities by the External Sensing factor, whereas Style C is missing from the dimensions of chairpersons' activities except as represented in the Balanced Oversight factor. Perhaps in academic settings, where chairpersons do not have a lot of rewarding power and where faculty, as well as chairpersons, often are involved in external sensing and vision setting, the distinction between control and flexibility for external foci may be less relevant than in business settings. I suggest that to characterize curriculum

leadership, the Quinn model might be modified to include only three dimensions. Clearly, as Tucker and others have observed, internal management may be approached from either of two leadership styles, flexible and controlling, but academic leaders who connect with the external environment may not approach their activities in ways that can be easily classified in this way.

It appears, however, that many chairpersons truly believe that they are operating according to Style C when, in fact, they may be neglecting the external leadership dimension in favor of coordination and other managerial activities. We have noted elsewhere (Stark et al., 2000) that in interviews with chairpersons drawn from this same sample, many respondents stressed total faculty responsibility for curriculum vision and described their role as a hands-off "facilitator" far more akin to the description of Style A than Style C. Chairpersons may not always correctly sense the leadership roles they are playing, at least in terms of distinguishing between how they would like to be perceived and the actual time they devote to specific activities.

DISCUSSION

The results of this survey of specially selected department chairpersons help us understand what some of the dimensions of curriculum leadership can be in effectively planning departments, which styles chairpersons of such departments prefer, and which activities or groups of activities are being neglected. The results also raise many questions about why certain chairpersons select particular roles. A survey encompassing many settings necessarily ignores the specific context (discipline, institutional type, state influences, department traditions) that is required for complete understanding of the role that is, or could be, played by any particular chairperson. An additional analysis is under way to examine differences among chairpersons by type of institution, chairperson gender, and academic discipline.

I began this study with concern that leadership for curriculum development had been neglected not only by department chairpersons themselves but also by those who exhort them to stronger leadership activities. For example, Hecht et al. (1999) say 80% of all key decisions in academic settings are made at the department level (p. 117) where the chairperson must be both change agent and manager, both preserver of program quality and initiator of discussions about improvement (pp. 35–36), but they do not develop specific ways that these competing roles can be balanced. Not only do chairpersons currently receive little or no preparation or orientation for their roles, but as this survey shows, they are unlikely to pursue professional development once they accept the job of curriculum leader. It is insufficient to say that building a dynamic culture, creating a supportive environment, or improving group communication is the key. The chairperson must be able to establish such a climate and to build on it

by gaining and using specific knowledge and expertise in curriculum development. Chairpersons must also be able to realistically assess the combination of leadership roles they are playing in order to be sure to attend to both internal and external matters.

Stark and Lattuca (1997) interpreted a model that Quinn and his colleagues originally developed to help business leaders examine their management styles. Does the model suggest ways to help chairpersons strengthen their curriculum leadership? With appropriate adaptations, it does seem useful for academic leaders. Although they do not map perfectly to the model, Stark and Lattuca's guidelines for leader activities in each quadrant can provide a viable initial checklist of activities for chairpersons. When modified to encompass two types of internal leadership and a single mode of attention to external matters, the model is realistic enough to help chairpersons realize the various options they have in allocating their time and energy. Chairpersons may want to choose more consciously between being facilitators and being visionaries, between being coordinators and being innovators, and to more consciously divide their time between internal management and external relations. Consideration of the activities they perform from day to day as well as the style of leadership they desire to use can help them discriminate between these various roles. Workshops and conferences designed especially for chairpersons can help them gain specific preparation for the roles that they tend to neglect because they feel unprepared. Both intentional reflection on their own style and the availability of professional development opportunities are needed if departments are to have strong leadership to meet challenges of continuous curriculum renewal.

NOTES

1. I used the word "style" only to differentiate this a priori combination of activities from a "role" that would be empirically derived from chairpersons' responses to specific activities.
2. For this and related studies, my colleagues and I sought departments with at least seven full time faculty members because we were interested in leadership of decision-making groups. Seven is an arbitrary number, but we judged that with fewer members, department administration may become extremely casual and informal. We did not include liberal arts colleges because most have departments smaller than seven members. To economize, we reduced the number of community colleges to a 22.5% sample because of the large numbers of these institutions.
3. Six of these departments were later determined not to meet all of the criteria.
4. The nominations were actually solicited and made in two waves. Some chairpersons identified in the first wave participated in an interview study preceding the survey (see Stark, Briggs, and

Rowland-Poplawski, 2000). The two waves were extremely similar in response rate, numbers of departments nominated, reasons for nominations, and types of disciplines nominated.

5. For a related analysis we have developed a method of arranging the departments on a continuum of "continuous planning" (Briggs et al., 2000).

6. A trial factor analysis completed without these items was very similar to the analysis when they were included.

7. I used pairwise deletion because there were few missing responses.

8. Recognizing that the factors were not very distinct, I also tried direct oblimin rotation. The rotation failed to converge after 25 iterations.

9. In retrospect, the words "encourages" and "suggests" in the description of Style C may also have suggested more flexibility and less control by the chairperson than I intended.

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