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ABSTRACT

This study examined ways professionally ambitious female elementary school teachers responded to different opportunities, in multiunit and conventional schools, to become influential on the teaching faculty in matters of instruction. Teachers in 27 schools received questionnaires and interviews every six months for two and one-half years. The results showed that conventional schools did not restrict female access to influential positions anymore than multiunit schools did. In both types of schools, the more ambitious females were more satisfied with their jobs, engaged in more communication, perceived themselves as more influential in the school, and were regarded by the faculty as influential. Those in the the multiunit schools became influential for different reasons than those in the conventional schools. The team leader position became a significant influence opportunity for the more ambitious females. (Author)

# PROFESSIONALLY AMBITIOUS FEMALE TEACHERS AND THE OPPORTUNITY TO BECOME INFLUENTIAL

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## PROFESSIONALLY AMBITIOUS FEMALE TEACHERS AND THE OPPORTUNITY TO BECOME INFLUENTIAL

Much research points to the powerlessness of women in the educational system. Many researchers have addressed the problem generally in terms of the low incidence of women who occupy formal positions of authority in the educational hierarchy, i.e., principalships and assistant principalships of elementary schools and high schools, superintendencies and assistant superintendencies of school districts. They have focused typically upon what Cohen calls vertically ambitious teachers, those who seek to increase their own influence primarily through promotion out of teaching to some administrative formal position in the school or elsewhere in a district.

Structural variables which characterize variation in the formal opportunities in the occupation hold much concurrent research interest. Of particular importance is how they may preclude an orderly career advancement for women into the politically important and influential upper-echelon positions. Current research and theory suggests that this so-called opportunity structure of the occupation also acts to restrict the career aspirations of women teachers.

Findings have shown the elementary school to be particularly problematic in this respect. Although that is where one finds the majority of women teachers and principals, women generally regard it as a dead-end place with respect to career advancement within the educational hierarchy. Gaertner (1978) pointed to the lack of connectedness of the elementary school with the upper echelons of the educational management hierarchy and attributed that circumstance to

non-task factors such as gender-based discrimination and low personal career aspirations. As yet, however, we still lack a clear understanding of the dynamics which explain why more women do not acquire these positions and why those few who do often lack authority to exert effective influence.

Perhaps, peculiarities about the opportunity to influence other teachers within the elementary school prevent female teachers from acquiring power there. A restrictive opportunity structure may limit their prospects and aspirations for possession and use of social influence and, consequently, for eventual advancement to educational management positions outside teaching itself. For women to move into authority positions from a vacuum of, or deficiency in, experience in developing, maintaining and exercising social influence over extra-classroom matters makes little sense if they are to be effective managers. Although the possibility of such a connection between intra- and extra-elementary school phenomena is a compelling one to investigate, we first need a better grasp of the relevant dynamics taking place within the elementary school itself.

This study adopts such an intra-school focus by dealing with the opportunity structure, aspirations, and activities surrounding the dynamics of female social influence exclusively within the elementary school. Somehow, in the school, female teachers who want to be influential must develop the relevant skills, leadership style, and power bases. Whether they do is still open to question. Indeed, the opportunities available for them to influence other teachers in their particular school may be sufficiently restrictive to thwart their developing requisite skills surrounding the dynamics of social influence.

Certainly, if the intra-school forces prove important to social influence of women teachers, then the research to date dealing primarily with the ambition and opportunity for advancement to formal educational management positions and the actual possession of them by women has been seriously shortsighted.

Of relevance to the dynamics of influence within the school is Cohen's (1973) concept of the professionally ambitious teacher. The professionally ambitious female teacher seeks to broaden her sphere of influence yet has little or no desire to leave the occupation of teaching for some formal administrative position. Such individuals wish to exert influence in areas in which they feel personally competent and skilled but also in an area recognized as important to teaching and learning in the school. If the more professionally ambitious teachers actually acquire influence in matters of instructional/curricular improvement, we would expect to find them more so than the less professionally ambitious teachers involved in certain activities which research has demonstrated characterize effective leadership.

In the school, matters of instructional and curricular improvement perennially arise as important considerations relevant to one's own professional development and that of other teachers but also central in the broader educational environment outside the particular school setting. Given the appropriate opportunity, the more concerned teachers who want to improve these matters by influencing their colleagues in some way may expand the focus of their ambition outside their immediate teaching situation and perhaps connect to some formal administrative role.

These considerations are important because they reflect the fact that a teacher who seeks to develop influence among her faculty peers may concurrently

hold overlapping motives for vertical advancement outside the elementary school teaching position. Furthermore, that a teacher demonstrates a great deal of professional ambition does not preclude her from accepting a formal authority position were it available, particularly were it to allow her to remain in teaching. A strong constraint on the strength of her vertical ambition may lie in her willingness to abandon teaching as an occupation for a more administrative role.

Cohen's study "Open Space Schools: The Opportunity to Become Ambitious" (1973) is particularly important here because it specifically examined the impact of differences in the elementary school opportunity structures on professionally ambitious female teachers. Although her investigation looked primarily at the relationship between ambition and satisfaction contingent upon the opportunity structure, her portrayal of the overarching social dynamics within the school surrounding differential opportunity structure; interaction and power provides a scenario relevant to the present study. For this reason, I describe her study in more detail here.

## The Cohen Study

Cohen had argued that although professionally ambitious teachers typically occupy no formal authority position, they can take the initiative to become influential through interaction with other teachers about their own ideas concerning teaching practices, curriculum, planning and the like. She recognized a problem for them, however, in the fact that schools differ in the extent to which they provide an opportunity structure which encourages such interaction about professional matters.

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Given the governance and work structure of the traditional elementary school, the professionally ambitious teacher finds herself in a frustrating circumstance because few conditions exist which allow her readily to take much initiative. Cohen felt most conventional schools isolate teachers from one another in their instructional activities and thereby severely limit avenues for the exchange of ideas and for mutual instructional activities. Similarly, teachers rarely communicate within a formal occupational context whereby they regularly meet specifically to discuss and make decisions concerning their teaching practices and students.

The restricted opportunity structure of the conventional school prevents those who seek to influence the course of instruction in the school from making any major kind of instructional impact on anyone but their own group of students. Under these circumstances teachers feel that few of their colleagues possess the power to influence instructional programs in their school. Since the more ambitious teachers cannot gratify their aspirations, they report less satisfaction with their jobs than less professionally ambitious teachers.

For this situation to change, Cohen contended that the school must institute some alteration in the opportunity structure allowing ambitious teachers to take the initiative to build their influence in the school and to feel more satisfied with their jobs. To examine the relationship between ambition and satisfaction of female teachers under different opportunity structures, she used data from a larger investigation conducted by herself and John Meyer at Stanford to study the impact of open space schools on collaborative relationships among teachers (Meyer and Cohen, et al, 1971).

They selected 17 elementary schools in the San Francisco Bay Area, nine (110 teachers) of which were, in their words, organized into "formal work teams to plan cooperatively and to conduct instructional tasks in open instructional areas where teacher situations are not separated by floor-to-ceiling partitions" and another eight schools (120 teachers) in which teachers were formally organized "to carry out instructional tasks individually and separately in self-contained classrooms."

Thus, two criteria formally distinguished the Open Space and Self-Contained schools: an architectural criterion--open vs. self-contained work areas--and an organizational criterion--the presence or absence of organized teams of teachers. At the time of their study, the open space schools had been so organized for at least one year but no more than four and a half years. In addition, all schools included K-6 grades serving primarily middle class suburban families.

The professional ambition instrument asked teachers the extent to which they wanted more frequent opportunities to help young teachers develop classroom skills, could see themselves leading workshops on teaching techniques, wanted to show other teachers their own personal teaching styles and techniques, and felt competent to make supervisory evaluations of other teachers. Weights for the response alternatives ran from 1 for strongly disagree to 6 for strongly agree. An item average constituted the scale score.

The job career satisfaction instrument consisted of five items which as a group tapped general satisfaction with teaching as a career. The items asked teachers the extent to which they were satisfied with their

present job and with teaching as an occupation, whether they would take a job outside education with the opportunity for close contact with adults and with children, and whether they would choose teaching again as a career. Possible scores ranged from 5 to 22.

Cohen hypothesized she would find a positive relationship between professional ambition and satisfaction in open space schools but an inverse relationship in self-contained schools. She had reasoned that the availability of the opportunity in the open-space schools to exert influence and have one's efforts recognized provided a means for gratifying the needs of the ambitious teachers, whereas its relative absence in self-contained schools frustrated the needs of ambitious teachers. She claimed an analysis of the three-way contingency table of frequencies for Professional Ambition (high, medium, low), Job Career Satisfaction (high, low), and School Type (open, self-contained), confirmed her expectations.

Although Cohen presented compelling arguments about the relationships among opportunity structure, professional ambition, interaction, influence, and satisfaction, her study left several relationships unexamined and some questions unanswered:

(1) She remained equivocal in her assessment of the relationship between ambition and satisfaction in the two types of schools. Although she felt her contingency table analysis substantiated her hypothesis, she expressed second thoughts as to whether more ambitious teachers took advantage of the enhanced opportunity structure and subsequently showed an increase in satisfaction or whether the enhanced opportunity structure induced an increase in ambition and satisfaction simultaneously.

To add to the confusion, our own reanalysis of her contingency table by means of log linear analysis sharply contradicts her interpretation and shows that no interaction whatsoever exists. That analysis indicates her data best fit a model which specifies a relationship of type of school to both ambition and satisfaction, open space schools showing a greater incidence of high scores for both. The analysis found both high ambition and high satisfaction more prevalent in open space schools; however, the relationship between ambition and satisfaction disappeared when school type was taken into account.

(2) She did not examine the relationship between how teachers attempt to build and maintain their influence and professional ambition, although she expected more ambitious teachers to take initiative to do so. Moreover, she failed to clearly specify how professionally ambitious teachers would go about building and maintaining their influence other than to say they would interact more with their colleagues than would less ambitious teachers.

(3) She did not report the impact of the different opportunity structures on the distribution of influence among women, although she expected more would come to be viewed as influential in open space schools. Moreover, she did not sufficiently characterize what kind of influence she meant. She also expected teachers would believe the more professionally ambitious teachers held some power to influence the instructional program of their school. Although this has some support in research on leadership behavior, her analysis presented no relevant evidence.

Data for the present study were drawn from a two and a half year longitudinal field study called Management Implications of Team Teaching (MITT), which compared the work and governance systems in a group of multiunit elementary schools with a matched set of conventional schools having no such staff organization. The nature of the variables and the research design in this study provided data conceptually relevant to Cohen's formulations and allowed a more extensive examination of the variety of relationships she postulated. In addition the MITT study had the advantage for a systematic replication of the Cohen study since the same Professional Ambition and Job Career Satisfaction questionnaires as she used were administered in the MITT sample.

## The MITT Study

Teachers in 27 schools received questionnaires and interviews every six months for two and a half years ending in the Spring of 1976. Fourteen innovative schools had installed a multiunit organization of their faculties in the Fall of 1974, two years prior to the final data collection. The shape of the formal managerial structure followed the Multiunit School model that had been developed by Klausmeir and others at the Wisconsin Research and Development Center for Cognitive Learning.

Thirteen schools from the same districts as the multiunit schools comprised their matched controls and had adopted no structural alteration or equivalents during the course of the MITT investigation. Their managerial structures reflected the undifferentiation typical of the conventional elementary school with the instructional staff responsible for students in their own classrooms at one level and the principal at another.

In contrast to the Meyer and Cohen schools, the MITT project distinguished the two sets of schools solely on the basis of this formal organizational structure criterion--the presence or absence of formal teaching units. No school was open space. The stipulation of what constituted a team was certainly more rigid than in the Meyer and Cohen study, even to the point that schools which were partially unitized or which started out unitized only to drop the unit structure were eliminated from the analysis. The final report of the project presents greater detail about the sample characteristics (Packard, et al, 1978).

Alterations in the Opportunity Structure in Multiunit Schools

In the multiunit schools, with the formation of teaching units or teams many barriers to the opportunity to exert influence fall away due to major changes in the work and governance systems. (1) When teachers belong to teams and hold joint responsibility for the instruction of a group of students they must communicate and collaborate with their team members about professional matters. This circumstance provides teachers with opportunities to exert influence about classroom matters at least among their team members. Although teachers do not work in a single large open space as in the Stanford open space schools, the chances for communication and visibility abound. (2) The teaching faculty in the school accepts collegial decision-making responsibility for an expanded scope of instruction-related issues in the school, and this alteration of the decision-making structure of the school increases the opportunity for teachers to exert influence on those within their team and also on other faculty members. The extent of collegial decision-making varies even among the multiunit

schools and therefore allows a more sensitive analysis of the influence of structure on behavior than with the dichotomous variable of unitization vs. nonunitization.

The degree to which a collegial decision-making structure existed concerning classroom instructional issues was determined from an interview of selected "informants" about who makes the decisions about particular issues for whom. Collegial decision making was defined as instances in which a group of teachers made the decision and were all subject to abide by it. It was possible to create an index which depicted the percent of all classroom related decisions made collegially and was called simply Collegiality. Details of the instrument and the construction of the index appear in Jovick (1978).

## Ambition, Satisfaction, and the Opportunity Structure

The nature of the MITT data permitted a test of Cohen's hypothesis about the differential relationship between ambition and satisfaction. The replication used the same professional ambition and job career satisfaction instruments she used. In addition, it added another instrument designed to measure satisfaction with various aspects of the present teaching situation, of work satisfaction. Although the innovative MITT schools were not of the open space variety, the teachers did form teams and engage in collaborative instruction.

The analysis used two indicators of opportunity structure of a school. One was simply the designation of whether the school organization was multi-unit or conventional. The other was the percent of decisions about classroom instructional matters made by teachers as a group.

Rather than employ contingency table analysis of frequencies, this analysis used multiple linear regression of scale scores constructed from responses to the questionnaires. This technique has the advantage of using the full variation in responses rather than being confined to a few arbitrarily designated categories.

Table 1 presents the means, standard deviations, and t-tests comparing multiunit with conventional female teachers on ambition and the two satisfaction measures. None of the differences between the teachers in the two types of schools are statistically significant suggesting that the level of professional ambition and satisfaction are not contingent upon the kind of opportunity structure provided by the multiunit schools.

TABLE 1: Means and Standard Deviations for Females in Multiunit and Conventional Schools (T5, 27 schools)

| | Ambition | | Job Satisfaction | | Work Satisfaction | |
|---|---|---|---|---|---|---|
| | Multiunit | Conventional | Multiunit | Conventional | Multiunit | Conventional |
| Mean | 3.12 | 3.01 | 18.0 | 18.5 | 3.24 | 3.30 |
| S.D. | 1.06 | .82 | 3.43 | 3.09 | .31 | .29 |
| N | 191 | 181 | 188 | 181 | 181 | 165 |
| t | 1.10 | | -1.25 | | -1.84 | |
| prob. | .27 | | .21 | | .07 | |

Table 2 presents the correlations among the opportunity structure variables and the ambition and satisfaction variables. These correlations offer evidence that the provisions by the opportunity structure for teachers to exert influence had no relationship to either satisfaction measure nor to professional ambition in female teachers. This contradicts the findings of Cohen.

TABLE 2: Correlations of Professional Ambition and Satisfaction with Opportunity Structure (TS, 27 schools)

| | School Organization (teams present-absent) | Percent Decisions Made Collegially |
|---|---|---|
| Ambition | .06 | .10 |
| Job Career Satisfaction | -.06 | .02 |
| Work Satisfaction | -.10 | .00 |

Table 3 presents the regression analysis for the relationship of Job Career and Work Satisfaction with Ambition and the two different measures of opportunity structure, School Organization and Collegiality.

TABLE 3: Regression Analyses--Influence of Ambition and Structure on Satisfaction (27 schools)

| Dependent Variable | Independent Variable | Increment in $R^2$ | Beta | b | F | d.f. |
|---|---|---|---|---|---|---|
| Job Career Satisfaction | Ambition | .028 | .17 | | 11.11* | 1/360 |
| | School Organization[a] | .005 | -.07 | | 1.96 | 1/360 |
| Work Satisfaction | Ambition | .017 | .14 | | 6.65* | 1/340 |
| | School Organization[a] | .011 | -.11 | | 3.91* | 1/340 |
| Job Career Satisfaction | Ambition | .027 | .17 | | 9.54* | 1/340 |
| | Collegiality | .000 | .00 | | .01 | 1/340 |
| Work Satisfaction | Ambition | .017 | .13 | | 6.16* | 1/340 |
| | Collegiality | .000 | -.03 | | .23 | 1/340 |

[a]School Organization coded 1 = multiunit, 0 = convontional

The interaction terms in the regression equations added nothing whatsoever to the proportion of explained variance of either satisfaction measure; all F-ratios were less than 1.00. Because no interaction was significant, the summaries of the analyses omit them.*

These replication findings neither support Cohen's expectations nor concur with the log-linear reanalysis of her contingency table data. No evidence exists of any relationship between opportunity structure and satisfaction. An exception may be the inverse relationship between type of school structure and work satisfaction which suggests that teachers in conventional schools report greater work satisfaction than those in multiunit schools regardless of their level of ambition. Notably, all increments in the proportion of variance explained are low--in fact, zero for Collegiality.

The MITT data showed no evidence that the relationship between professional ambition and satisfaction of women teachers varied depending upon the nature of the opportunity structure of the schools in which they taught. Whereas the log-linear analysis of Cohen's data demonstrated that teachers in the open space schools showed greater professional ambition and satisfaction than those in self-contained schools, the t-tests and correlations for the MITT data gave no evidence of similar differences between teachers in multiunit and conventional schools nor of relationships to variations in collegial decision making. Whereas the log-linear analysis indicated the relationship between ambition and satisfac-

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*This is common procedure. Because of the nature of the regression techniques using an interaction variable, the beta weights associated with the variables separately (which were multiplied together to obtain it) are uninterpretable. Hence, finding no significant interaction, one examines the weights obtained without the interaction term in the equation.

tion disappeared when taking type of school into account the regression analysis yielded a significant positive relationship, although weak, between the two regardless of school type or degree of collegiality. The fact that the two types of schools and the formal arrangements for teaming in the innovative schools differed markedly between the Cohen and the MITT studies may account for some of these discrepancies.

Finally, Cohen proposed that the enhanced opportunity structure in the open-space schools produced the high level of ambition among women there, although the cross-sectional nature of the Stanford study did not permit her to test this. In the MITT data, the level of ambition a teacher possessed prior to unitization (at T1) could be expected to hold some degree of stability over time--highly ambitious women would tend to continue to be highly ambitious, less ambitious women would tend to remain so. If multiunit and conventional teachers differed in their levels of ambition prior to unitization, a high stability in ambition would preserve the multiunit-conventional differences through time and show up at T5 regardless of any effects of unitization on ambition. Similarly, any relationship between Collegiality and Ambition at T5 may have been due to the fact that the preunitization ambitious women tended to work in the schools which had higher levels of Collegiality.

The means for Ambition are presented in Table 4 for T1 and T5. Apparently, the multiunit schools did not differentially attract or recruit professionally ambitious teachers prior to the establishment of units. The multiunit schools showed a drop of .18 whereas the conventional schools showed an unexpectedly larger drop of .26.

TABLE 4: Mean Professional Ambition Scores at T1 and T5

| | T1 | | T5 | |
|---|---|---|---|---|
| | Mean | N | Mean | N |
| Multiunit | 3.29 | 104 | 3.11 | 104 |
| Conventional | 3.30 | 109 | 3.04 | 112 |

Regression analysis allows us to determine if teaching under a particular Opportunity Structure increased ambition beyond a level expected from T1. For this purpose, I used the cohort of women teachers who had been in the same schools and furnished questionnaires at both T1 and T5. The procedure was to regress Professional Ambition at T5 on Professional Ambition at T1 and either the dummy-coded School Organization variable or the continuous Collegiality variable.

The analysis strategy assesses the degree of relationship between variation in Opportunity Structure and the residual variation left in T5 Ambition after removing that predicted by variation in T1 Ambition. The residuals represent unexplained change in the variation in Ambition. Therefore, any substantial change in Ambition which we wish to attribute to variation in Opportunity Structure will appear as a significant association between the residuals and School Organization or Collegiality. The relevant statistic is the increment in the proportion of variance in T5 Ambition accounted for by the Opportunity Structure variable.*

* An interaction variable was also added to test the assumption for homogeneity of regression; this variable was created as the product of T1 Ambition and either the School Organization variable or the Collegiality variable. None of the interaction terms were statistically significant, adding only .5% to the proportion of variance in the first equation and .6% in the second, and they therefore do not appear in the table.

The results of the regression analysis appear in Table 5. Only the level of ambition prior to unitization showed any appreciable influence on T5 level of ambition, explaining 39% of its variance. The beta indicates that those females who were ambitious at T5 tended to be those who were ambitious at T1.

The analysis suggests that professional ambition was a characteristic women possessed prior to unitization regardless of the opportunity structure. No evidence indicated that the multiunit schools or those with the greater degrees of collegial decision making produced any boost in the level of professional ambition of the teachers. In fact, the female teachers, in general, showed an unexplainable drop in their level of professional ambition in both schools--and the drop was greater in the conventional schools.

TABLE 5: Regression Analysis Summary--Effect of Opportunity Structure on Ambition.

| Dependent Variable | Independent Variable | Increment in $R^2$ | Beta | F |
|---|---|---|---|---|
| Ambition T5 | Ambition T1 | .392 | .62 | 133* |
| | T1 Collegiality | .004 | .07 | 1.52 |
| Ambition T5 | Ambition T1 | .392 | .63 | 135* |
| | School Organization[a] | .003 | .05 | .96 |

[a]School Organization coded 1 = multiunit, 0 = conventional

*Significant at alpha = .05, df = 1/209

## Developing and Maintaining Influence

Obviously, the more professionally ambitious teachers are prime candidates whom we would expect to assume leadership roles and acquire power within the school in matters of instructional and curricular improvement regardless of the opportunity available for teachers to exert influence on one another. Research in the area of leadership behavior and group dynamics implies that teachers who feel personally competent with their own instructional capabilities and have ideas for improvement of instruction will aspire to some leadership role to help bring about the improvement of teaching among teachers in the school. Ths implies the more professionally ambitious teachers will engage in activities which tend to increase their own influence over others. Research and theory on leader behavior and group dynamics indicates they will try to establish and maintain a power base through interpersonal relationships with other teachers (Cartwright and Zander, 1968). Cohen had stated that the professionally ambitious teachers would interact more with other teachers in the school, but she did not make the connection to power and influence so explicit.

The nature of the interaction with other teachers must serve to promote group maintenance and goal achievement functions, both necessary to develop and preserve leadership status. If Cartwright and Zander are correct, this means the more professionally ambitious teachers would attempt to become more centrally involved in both the communication and the instructional networks of the school.

## Communication

Findings from research on leadership show that leaders tend to both give and ask for more information, talk more often in meetings, send more messages

to those not near at hand, receive more messages from those at lower status levels, and make more frequent interpretations about the situation than the rest of the members of a group. They also attempt to improve the quality of interactions among members, build cohesiveness of the group, and propose courses of action.

Such involvement in the communication network by the more professionally ambitious teacher would serve a goal achievement function as the means to communicate ideas about instruction with the other teachers and to create a sense of interdependence among them and consequently a sense of responsibility to work toward the same goals in which the leader is interested. It is a means of focusing the attention of other teachers on the goal of instructional improvement, of developing plans with them, clarifying issues jointly, and making information available. It serves a group maintenance function as a means to friendship, trust, mutual respect, and general social sensitivity to others.

Therefore, we would expect to see the more professionally ambitious teachers involved in a greater amount of both work-related and social communication with other teachers. The MITT staff designed a sociometric instrument to measure communication in each of three areas--classroom matters, nonwork matters, and school-wide matters. Teachers indicated those other teachers in the school with whom they talked about each topic and the frequency. The scores reported in this analysis reflect both the frequency and number of reciprocated instances of communication (for any pair of teachers both must have indicated they talked with each other). The MITT final report presents greater detail on this instrument (Packard, et al, 1978).

Collaborative Teaching

We would also expect to see the more professionally ambitious teachers involved in an aspect of instruction which obviously would require initiative and, therefore, one in which they could demonstrate communication, interdependence, and personal competence on their part in organizing activities of a curricular- or instructional-related nature. Collaborative teaching is an instructional activity which provides one such means to group achievement of goals of interest to the professionally ambitious teacher. It obviously requires that other teachers involved keep their attention directed to the same goal as that of the leader, especially when the leader is a partner in the collaborative teaching arrangement. Its demand for communication and interdependence among teachers can facilitate the group maintenance function for the leader.

Analyses by Charters (1976) indicate that various sorts of interdependent collaborative teaching arrangements within the same subject areas are common phenomena in the instructional organization of elementary schools, although the activity is still considered relatively innovative. Some such systems of student exchange among teachers are highly structured and often resemble departmentalization by subject area. These generally exist as a part of deliberate school policy on instructional organization and, consequently, their character is not likely to depend upon individual inclination and changing faculty composition in the school from year to year.

This report focuses upon those instances of interdependence that would more likely be recognized as emergent systems of collaborative teaching. To

measure instances of collaborative teaching, the MITT staff devised a simple logging procedure on which each teacher could indicate which students she taught in each of five core subject areas during a two-week period. From the basic data, they constructed scores for each teacher to reflect her degree of instructional interdependence with other teachers in the same subject area. Details of the instrument appear in the MITT final report (Packard, et al, 1978).

The formation and maintenance of these systems relies more upon personal attributes and require initiative, commitment, communication for planning and problem solving, and intentional interdependence. Charters (1976) was unable to determine the extent to which such collaboration was a matter of administrative convenience for teachers or determined by the assessed educational needs of the students.

The perspective in this report expects the more professionally ambitious female teachers to assume a major role in interdependent activities and therefore offers a different accounting of the emergence of interdependent systems. It implies that the extensity of collaborative relationships may be a function of the needs of professionally ambitious teachers to get actively involved in an instructional leadership activity which requires initiative, planning, interaction and interdependence.

According to Cohen's arguments, we should find that opportunities for communication and collaborative teaching open up with the multiunit organization and, therefore, that the more professionally ambitious teachers there will engage in them more than will those in the conventionally organized

schools. Because of the demands of the innovation in the multiunit schools for coordination and collaboration, we should also find that the less professionally ambitious teachers in the multiunit schools engage in these activities more than those in the conventional schools. This indicates we expect the relationship between ambition and both communication and collaborative teaching to be different for multiunit and conventional schools.

The analytic procedure was to regress each of the three communication variables and the collaborative teaching variable on professional ambition, either of the two opportunity structures, variables and an interaction variable created by multiplying the ambition and opportunity structure variables together. For each of the four dependent variables I ran two separate regression runs which differed only in their measures of opportunity structure, either School Organization or Collegiality.

No increment in the proportion of explained variance attributable to the interaction was statistically significant for any regression analysis. The largest increment was .01 with the largest F-ratio equal to 2.1, which did not reach significance with 1 and 368 degrees of freedom. Tables 6 and 7, therefore, exclude the interaction terms in their presentation of the regression results.

Table 6 shows that regardless of the opportunity structure that existed in a school, the more professionally ambitious teachers tended to participate more in the communication network of the school than did the less ambitious teachers; this occurred in all three areas of communication. Table 7, however, reveals no evidence of similar involvement of professionally ambitious teachers in collaborative teaching arrangements. The results suggest that the profes-

sionally ambitious teachers focused upon placing themselves centrally in the communication network of the school but, contrary to expectations, not in the instructional network..

TABLE 6: Influence of Opportunity Structure and Professional Ambition on Communication

| Independent Variables | Increment in $R^2$ | Beta | F for Beta |
|---|---|---|---|
| | Reciprocated Classroom Communication | | |
| Ambition | .04 | .20 | 15.0* |
| School Organization[a] | .03 | .18 | 13.0* |
| Ambition | .04 | .18 | 12.0** |
| Collegiality | .02 | .17 | 9.00** |
| | Reciprocated School Matters Communication | | |
| Ambition | .03 | .15 | 9.0* |
| School Organization[a] | .03 | .17 | 12.0* |
| Ambition | .02 | .13 | 6.6** |
| Collegiality | .04 | .21 | 16.0** |
| | Reciprocated Nonwork Communication | | |
| Ambition | .02 | .15 | 9.0* |
| School Organization[a] | .00 | -.02 | .12 |
| Ambition | .02 | .15 | 8.2** |
| Collegiality | .00 | -.02 | .00 |

[a]Coded, 1=multiunit, 0=conventional

*df = 1/369
**df= 1/349

TABLE 7: Influence of Opportunity Structure and Professional Ambition on Collaborative Teaching

| Independent Variables | Increment in $R^2$ | Beta | F for Beta | df Betas |
|---|---|---|---|---|
| Ambition | .00 | .00 | .00 | |
| School Organization[a] | .08 | .27 | 29.0* | 1/362 |
| Ambition | .00 | -.04 | .11 | |
| Collegiality | .12 | .35 | 46.9* | 1/349 |

[a]Coded, 1 = multiunit, and 0 = conventional

*Significant at $\alpha = .05$

Power Among Women Teachers

According to French and Raven (in Cartwright and Zander, 1968), power may rest in one or more of four circumstances surrounding these interpersonal relationships among the teachers--formal office, control of rewards, attraction, expertness.

Legitimate Power

A teacher holds legitimate power by virtue of office. The majority of studies of women in educational management have focused upon this type of power base. It involves a role relationship in which the incumbant acquires a legitimate right to exert influence over specified concerns of others who

have, in turn, an obligation to accept the exercise of influence.* Specifications of such role characteristics generally include the range of areas and the domain of individuals over which the incumbant possesses power.

Within each teaching team in the multiunit schools, a formal position of authority existed for the regular classroom teachers, the team leader. It was neither a permanent position (typically leaders changed yearly) nor one that led to another authoritative position in or outside the school. It was, however, a position which provided an opportunity for teachers to acquire a legitimate power base. Each leader officially sat on school-wide instructional cabinets with the principal and other team leaders, and each was responsible for coordinating activities and handling affairs not managed by the teams independently. No such comparable position existed in the nonunitized schools.

Cartwright and Zander (1968) cite studies which indicate that individuals who are chosen as such group leaders, and thereby acquire legitimate power, involve themselves in activities of organizing, integrating, and planning group functions more than do those not selected as leaders. Research also suggests that those teachers most likely to meet the job-related needs of other teachers in the school would tend to be granted leadership positions were they available.

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*French and Raven view legitimate power as not necessarily being a formal role relationship. They claim that cultural values may be a basis for attributing an individual with legitimate power; for example, individuals who are elderly, experienced, highly intelligent may be regarded as possessing a legitimate right to exercise influence. However, such attributions seem more characteristic of other bases of power, e.g., experience contributing to expert power.

However, a school faculty may regard one or more of their teachers as a leader and attribute them with power whether or not they actually hold a formal office or administrative position. Perhaps one's key bases for power more logically lie more in other less formal types of relationships with teachers than in the conferred authority of a formal position. These relationships build reward, referent and expert power and, in turn, may influence the acquisition of available legitimate power positions.

Reward Power

When a teacher controls access to some of the rewards valued by other teachers in the school, she possesses reward power. The strength of this power will increase according to the perception by those teachers of the magnitude or importance of those rewards and of her chances of being able to mediate them.*

Immediate consequences of a leader's successful use of reward power occur in the behaviors of others rather than in their beliefs or attitudes. Changes in beliefs and attitudes may accompany behavior changes sooner or later but these are usually attributed to other bases of power held by to the leader, such as reference power. If the rewards over which a professionally ambitious teacher has control somehow tie to her aspirations in instruction and curricular improvement, her use of them can play an important role in her own goal achievement and group maintenance activities and serve to increase her own attractiveness

*Coercion is a form of Reward Power in which the teacher uses punishment or withdrawal of positive rewards; its effectiveness is contingent upon the perceived legitimacy of the use of coercion, but it generally results in decreased attraction for the influencer and high resistance to conformity.

to others, lower resistance to her exercise of influence, and increase the sphere and magnitude of her influence.

The MITT instrument for Reward Power asked teachers to name persons whose support they considered most worth enlisting in order to gain faculty approval for an idea or proposal. From the data the investigators identified which individuals in the school held reward power. In the present study, then, this is a dichotomous variable according to which a female is seen by others in the school as holding or not holding reward power. Details of the instrument and the method of classifying individuals as holding reward power or not appear in Packard, et al, (1978).

Referent Power

A teacher possesses referent power when other teachers have some degree of attractiveness to or identification with her value system. For the professionally ambitious teacher this is important to possess because it tends to induce some measure of conformity to her behaviors, attitudes, and beliefs regardless of whether or not she actually attempts to exercise influence. Thus, behaviors, beliefs and attitudes can all change in response to the reference power teachers attribute to another teacher.

Although the range of influence tends to extend over a broad sphere of related areas, a professionally ambitious teacher's ability to influence other teachers remains limited according to the specific bases of attraction or identification. Therefore, for her referent power to play a meaningful role in her overall ability to influence other teachers in the direction of her

aspirations, it is imperative that her attractiveness lie in work-related factors about instruction and/or curriculum. Such a linkage between aspirations and referent power can strengthen activities in goal achievement and group maintenance and concurrently maintain and build her general influence over other teachers.

The format for the Referent Power instrument was the same as that for Reward Power. It asked teachers to name individuals whose suggestions for solutions of problems are more useful and reasonable than suggestions made by other individuals. This too is a dichotomous variable such that a female either does or does not possess referent power. The method of classifying individuals as holding referent power or not was the same as that used for reward power. Details are in Packard, et al, (1978).

Expert Power

A teacher holds expert power when others will abide by her views and wishes because they see her as possessing expertise and credibility in a particular area and access to relevant information. Expert power tends to have the most limited consequences because it is restricted to a specific area of expertise and induces change primarily in cognition, although this may be accompanied by possible alterations in behavior and attitudes--a possible halo effect related to referent power.

Although this study does not directly address expertness, it logically ties to the possession of referent and reward power. It makes sense

that professionally ambitious teachers be regarded as possessing some measure of knowledgeability in instructional and/or curricular matters if she is to gain any credibility when she attempts to instruct or otherwise influence other teachers in those areas. Her referent power in this area may, in part, rely on the attractiveness of her ideas if she is considered knowledgeable; her reward power may, in part, stem from an acknowledgement of the legitimacy of her ideas.

Power Bases in Multiunit and Conventional Schools

If Cohen is correct, we should find a difference between the two types of schools in their distribution of these power bases among women, since she expected that more women would come to be viewed as influential under an enhanced opportunity structure. Table 8, however, shows that no significant differences exist in the distribution of the reward and referent power bases among women in the multiunit and conventional schools.

TABLE 8: Distribution[a] of Reward and Referent Power Bases in Multiunit and Conventional Schools at T5

| Power Base | School Type | |
|---|---|---|
| | Multiunit | Conventional |
| Neither | 160 | 152 |
| Referent only | 10 | 11 |
| Reward only | 11 | 8 |
| Both | 14 | 15 |
| Total | 195 | 186 |

[a] $\chi^2 = .55$, df = 3

Based on French and Raven's work and extensions in Cartwright and Zander (1968), we would also expect some degree of relationship between possessing one type of power base and another. Across both types of schools, we observe that 42% of those who held a power base held both referent and reward power and the correlation between holding reward and referent power is .53 (n = 381). In the multiunit schools the correlations between being a leader (coded 1 = team leader, 0 = nonleader) and holding reward or referent power are .43 and .29 respectively (n = 195 in each case.)

These correlations, however, may be misleading due to the highly skewed distributions having a large number of individuals holding no power base. To get a clearer picture, Table 9 lays out the distribution of these two power bases for leaders and nonleaders. It shows that a discrepancy exists between leaders and nonleaders in the possession of these two power bases.

TABLE 9: Distribution of Reward and Referent Power for Leaders and Nonleaders at T5

| Power Base | Nonleaders | Leaders |
|---|---|---|
| Neither | 138 | 18 |
| Referent only | 7 | 3 |
| Reward only | 4 | 7 |
| Both | 5 | 9 |
| Total | 154 | 37 |

About half the leaders have neither reward nor referent power, the rest tend to have either reward power alone or both together. The nonleaders who possess power show an almost even power split among reward only, referent only, and both together. The table also indicates that of the 35 multiunit

women teachers who hold reward and/or referent power, only about half are team leaders.

## Gain and Loss of Power Bases

If women preserve their power base through time, then we would expect a correlation between reward and referent power at T1 and T5. Moreover, if those initially advantaged with a power base tend to move into the leader positions, we should find a correlation between reward and referent power at T1 and legitimate power at T5. Table 10 presents the relevant correlations and suggests a moderate tendency for those with power at T1 to hold it also at T5 and, also, to acquire the team leader positions. The relationship to the team leader position, however, is noticeably weaker.

TABLE 10: Relationship Between Holding Power Base at Time 1 and Holding Power Base at Time 5.

| | T5 Power Base | | |
|---|---|---|---|
| T1 Power Base | Reward[a] | Referent[a] | Legitimate[b] |
| Reward | .37 | .40 | .16 |
| Referent | .31 | .34 | .22 |

[a] n = 381

[b] n = 195 ; Legitimate Power coded 1 = team leader, 0 = nonleader.

Table 11 presents further evidence concerning the gain and loss of reward and referent power between T1 and T5.

TABLE 11: Gain and Loss in Reward and Referent Power from Time 1 to Time 5: Frequencies

| T1 Power | T5 Power: None | T5 Power: Reward and/or Referent Power |
|---|---|---|
| Conventional Schools | | |
| None | 151 | 24 |
| Reward and/or Referent | 1 | 10 |
| Multiunit Schools | | |
| None | 155 | 27 |
| Reward and/or Referent | 5 | 8 |

In both types of schools about 14% of the women acquired one or both power bases. Of those who held power at T5, about 30% in the conventional and 22% in the multiunit schools also had held power at T1. The majority possessed no power at either time, and more lost power completely in the multiunit schools (38%) than in the conventional schools (9%).

The general picture is that about two-thirds of those holding reward and/or referent power in both schools at T5 had acquired it after T1.* In comparison to the conventional school opportunity structure, the new opportunity structure in the multiunit schools did not necessarily advantage those who previously held power in holding power by T5.

Table 12 presents the same data for those women in the multiunit schools who did and did not become team leaders at T5.

*Some of this increase may have been attributable to a more complex questionnaire battery given to all teachers at T1; substantially fewer nominations were given at T1 in both schools than at any later wave.

TABLE 12: Frequencies of Gain and Loss in Reward and Referent Power from Time 1 to Time 5 for Team Leaders and Nonleaders

| T1 Power | T5 Power: None | T5 Power: Reward and/or Referent |
|---|---|---|
| **Nonleaders** | | |
| None | 137 | 13 |
| Reward and/or Referent | 4 | 3 |
| **Leaders** | | |
| None | 18 | 14 |
| Reward and/or Referent | 1 | 5 |

Of those 27 teachers in the multiunit schools who held some power at T5 but not at T1, about half were leaders. Only a few leaders had held power at time 1 and one lost it completely. About 47% of the leaders held no power base at either T1 or T5. The pictures suggests that a woman's lack of reward and/or referent power at T1 did not necessarily disadvantage her in acquiring either of them or the team leader position at T5

Those who had already held power at time 1 tended to keep it by time 5 if they taught in the conventional schools; in the multiunit schools, many tended to lose their power base if they did not become leaders.

## Ambition and Power

Based on Cohen's arguments and those of research on leadership, we should find that those teachers whom others regard as holding power bases will be the more professionally ambitious teachers. Specifically, we should find that the more professionally ambitious females hold reward power and, in the

multiunit schools, the team leader positions. Similar expectations for referent power are not so clear, particularly since, more so than reward and legitimate power, one may acquire and maintain it without the intention to do so.

The moderate T5 correlations in Table 13 tend to support the expectations, although the proportions of variance in ambition accounted for by each power base (obtained by squaring each correlation) are low: .026 for referent power, .07 for reward power, and .048 for leader position. The correlations of these power bases at T5 with the level of professional ambition at T1 suggests that the previously ambitious teachers were initially advantaged in the acquisition and/or preservation of reward and referent power and tended to be the ones who moved into the leader positions.

TABLE 13: Relationship Between Power Bases[a] at Time 5 and Professional Ambition at Time 1 and Time 5

| Power Base T5 | Professional Ambition T1 | Professional Ambition T5 |
|---|---|---|
| Reward | .26 (321) | .21 (213) |
| Referent | .16 (321) | .19 (213) |
| Legitimate[b] | .22 (195) | .22 (104) |

[a]Some overlap exists in the power bases. For example, reward power includes all those who possess it including those who also possess referent power and legitimate power.

[b]Legitimate power refers to holding a leader or nonleader position.

Table 14 presents a more formal analysis of the relationship at T1 between professional ambition and possession of reward and referent power. Ambition was regressed on dummy coded variables for reward power and referent power plus an interaction vector (created by multiplying the two dummy coded

variables together). The procedure is the regression approach to the two-way analysis of variance (Kerling and Pedhazur, 1973). I included opportunity structure as a variable to control for any possible pre-unitization differences that might have occurred due to "gearing up" for the innovation in the multi-unit schools.

TABLE 14: Regression Analyses Between Power Bases and Professional Ambition at Time 1

| Independent Variable[a] | Beta | F | Increment in $R^2$ |
|---|---|---|---|
| School Organization[b] | -.01 | .03 | .00 |
| Reward Power[c] | .24 | 8.73* | .07 |
| Referent Power[c] | .05 | .40 | .00 |
| Collegiality | -.05 | 1.28 | .00 |
| Reward Power | .24 | 9.23* | .07 |
| Referent Power | .05 | .37 | .00 |

[a]Since none of the interactions reached statistical significance, only the regression equation with main effects are reported here; this is standard procedure (Kerling and Pedhazur, 1973).

[b]Coded 1 = multiunit, 0 = conventional.

[c]Coded 1 = power, 0 = no power

*Significant at $\alpha$ = .05, df = 1/209

The results show that, independent of the opportunity structure, only reward power accounted for a significant proportion of variance in ambition. The significant beta indicates that those women who reported the greater levels of

professional ambition at T1 also tended to hold reward power regardless of whether they also held referent power. No such relationship existed for referent power that was independent of reward power.

The regression in Table 15 indicates that controlling for the T1 relationship between ambition and these two power bases, the women who were more ambitious in the multiunit schools prior to unitization tended to be the ones who moved into the team leader positions at T5. Although the betas for reward and legitimate power are equal, only that for legitimate power is statistically significant. The increment in the proportion of variance explained for legitimate power beyond that accounted for by differences in the other two power bases is also statistically significant ($F = 4.4$, $df = 1/100$). Although holding a power base prior to unitization was associated with the acquisition of the team leader position, this analysis suggests it was not essential because, regardless of the power bases they held, the more ambitious women tended to acquire the leader positions.

TABLE 15: Regression Analysis of Relationship Between Professional Ambition at Time 1 and the Acquisition of Legitimate Power at Time 5

| Independent Variables[a] | Beta | F | Increment in $R^2$ |
|---|---|---|---|
| Reward power[b] T1 | .20 | 2.78 | .05 |
| Referent power[b] T1 | -.01 | .00 | .00 |
| Legitimate power[b] T5 | .20 | 4.11* | .04 |

[a]See note "a", Table 13.

[b]Coded 1 = power, 0 = no power.

*Significeant at $\alpha = .05$, $df = 1/100$

By T5, the relationship between ambition and power was such that the more ambitious women tended to hold the power bases. Table 16 suggests that those women with reward power alone or together with referent power reported the greater levels of ambition, as did those who held the team leader positions.

TABLE 16: Mean Professional Ambition Scores at Time 5 for Power Bases

| Power Base | M | S.D. | N |
|---|---|---|---|
| Reward/referent power | | | |
| Neither | 3.08 | .99 | 304 |
| Referent only | 3.13 | .76 | 21 |
| Reward only | 3.40 | .94 | 18 |
| Both | 3.62 | 1.37 | 29 |
| Legitimate power | | | |
| Nonleader | 3.00 | 1.01 | 37 |
| Leader | 3.59 | 1.18 | 154 |

[a]Multiunit and conventional schools
[b]Multiunit schools only

Of particular interest is the relationship between the gain or loss in power bases from T1 to T5 and the ensuing variation in professional ambition at T5. To examine this, I classified women into two groups at T1: those who possessed reward and/or referent power and those who possessed neither. At T5, they fell into four separate classifications: those who possess no power base, those who possess reward and/or referent power only, those who are team leaders with neither reward or referent power, and those who are team leaders with reward and/or referent power. The breakdown in Table 17 of T5 ambition scores

contingent upon the power bases held at both times allows us to examine levels of ambition for those who lost, gained, or retained power between T1 and T5.

TABLE 17: T5 Professional Ambition and Change in Power Bases From T1 to T5 in Conventional and Multiunit Schools.

| | Mean | S.D. | N |
|---|---|---|---|
| **Conventional Schools** | | | |
| No reward/referent power T1 | | | |
| No reward/referent power T5 | 2.94 | .79 | 147 |
| Reward/referent power T5 | 3.21 | .68 | 23 |
| Reward/Referent power T1 | | | |
| No reward/referent power T5 | 3.30 | 0.0 | 1 |
| Reward/referent power T5 | 3.50 | 1.33 | 10 |
| **Multiunit Schools** | | | |
| No reward/referent | | | |
| No reward/referent power T5 | 3.01 | .98 | 134 |
| Reward/referent power only T5 | 3.07 | 1.31 | 13 |
| Legitimate power only T5 | 3.36 | 1.22 | 17 |
| Reward/referent and legitimate power T5 | 3.66 | 1.08 | 14 |
| Reward/Referent power T1 | | | |
| No reward/referent power T5 | 2.60 | .85 | 4 |
| Reward/referent power only T5 | 3.03 | 1.53 | 3 |
| Legitimate power only T5 | 2.30 | 0.0 | 1 |
| Reward/referent and legitimate power T5 | 4.46 | 1.05 | 5 |

Some n's may differ from Tables 11 and 12 due to missing data.

In the conventional schools, the less ambitious teachers tend to be those who held neither power base at either time. The 23 who gained power are slightly more ambitious and the ten who retained power report the highest mean ambition.

In the multiunit schools, those who initially had no power and managed to gain the team leader position reported high ambition; it was slightly higher for those who also gained reward and/or referent power. Among those who initially held a power base, the five who retained that base and moved into the team leader position reported the highest mean ambition of all.* The five who lost their initial power bases reported low ambition although one managed to become a team leader.

Because a relationship exists between holding power bases and professional ambition, the data about gains in power for women suggests they may also have increased their ambition. Regression analysis permits us to examine whether holding a particular power base at T5 increased ambition beyond that expected from T1.

The analysis strategy is the same as that used to assess change in satisfaction attributable to Opportunity Structure. The procedure determines the degree of relationship between variation in the power base variable and the residual variation in professional ambition after removing that predicted by variation in T1 professional ambition. The residuals represent unexplained change in the variation in ambition. Therefore, any substantial change in professional ambition which we wish to attribute to variation in the power base will appear as a significant association between the residuals and reward power or referent power or both.

*Those teachers who held reward and/or referent power at both times may have increased their power bases over time. For example, one who held referent power at T1 may have added reward power by T5. Obviously, some increased their base power by becoming team leaders.

I ran regression analyses with T5 ambition as the dependent variable, T1 ambition as the covariate, and T5 reward and referent power as the independent variables. I also included the two Opportunity Structure variables to control for any possible variation in ambition attributable to either of them. The relevant statistic is the increment in the proportion of variance accounted for by each power base. In this case, the increment associated with referent power reflects the association between variation in referent power and the residual variation in ambition unaccounted for by variation in T1 ambition, Opportunity Structure, and T5 reward power.* Table 18 presents the results.

Only the pre-unitization variation in professional ambition showed any relationship to that at T5. Neither reward nor referent power accounted for any change in professional ambition.

The same analysis was done in the multiunit schools alone to examine whether acquiring the team leader position contributed to a change in professional ambition at T5. Table 19 shows that whether or not a woman became a unit leader accounted for a significant increment in the proportion of explained variance in ambition at T5. The beta of .23 suggests that, regardless of the preunitization level of ambition or the power bases one held at T5, those teachers who acquired the unit leader position tended to show an increase in ambition.

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*Appropriate interaction terms were computed and entered in the analysis. None of them were statistically significant.

TABLE 18: Relationship Between Change in Professional Ambition T1-T5 and Reward and Referent Power Bases at T5

| Independent Variable | Increment in $R^2$ | F |
|---|---|---|
| Ambition T1 | .390 | 133.62* |
| Opportunity Structure[a] | .002 | ns |
| Reward Power[b] | .006 | ns |
| Referent Power[b] | .000 | ns |

[a]Two separate regression equations were run: one with the dichotomous School Organization, the other with the T5 Collegiality variable. Because both accounted for the same nonsignificant increment in the proportion of variance, only a single equation appears here.

[b]Coded 1 = power, 0 = no power

*Statistically significant at alpha = .05, df = 1,207

TABLE 19: Influence of Leader Position on Professional Ambition at T5

| Independent Variable | Increment in $R^2$ | F |
|---|---|---|
| Ambition T1 | .440[a] | 74.07* |
| Reward Power[b] | .000 | ns |
| Referent Power[b] | .000 | ns |
| Legitimate Power[c] | .036 | 6.73* |

[a]The increment here is different from that in Table ___ because the analysis is confined to the multiunit schools only.

[b]Coded 1 = power, 0 = no power.

[c]Coded 1 = team leader, 0 = nonleader

*Statistically significant at alpha = .05, df = 1.98

Ambition, Power, and Participation in Communication and Collaborative Teaching

The more ambitious teachers apparently tend to take advantage of whatever opportunities exist to develop power bases. Evidence also suggests they take advantage of the communication network, but not the instructional network, more than the less ambitious teachers. Are the women who maintain or acquire power bases the ones who actively participate in the communication and instructional networks of the schools?

Table 20 presents the data for the three areas of communication arrayed as they were for ambition in Table 17. Classroom and school-related communication suggest similar relationships with power.

In conventional schools, both seem important to retaining power although one woman continued to communicate extensively at T5 after having lost her power base. In the multiunit schools, those women who acquired power or preserved what they had held communicated no more than those who lost it or never had it. Only team leaders who had preserved or gained power showed a markedly high level of communication, and they had also reported the highest mean ambition scores. The other leaders who possessed neither reward nor referent power at either time showed no tendency to communicate more than nonleaders although they, too, had reported a high mean ambition score.

Nonwork communication, in comparison, apparently made no difference with respect to gain and loss in power in the conventional schools. However, those who preserved their power were not only the most ambitious, but also engaged in the greatest level of nonwork communication with other teachers.

TABLE 20: T5 Communication and Change in Power Bases from T1 to T5 in Conventional and Multiunit Schools*

| | Classroom Communication | | School-related Communication | | Nonwork Communication | | |
|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | N |
| **CONVENTIONAL SCHOOLS** | | | | | | | |
| No reward/referent power T1 | | | | | | | |
| No reward/referent power T5 | 11.0 | 7.35 | 12.9 | 8.07 | 20.9 | 11.38 | 151 |
| Reward/referent power T5 | 10.6 | 8.51 | 12.9 | 9.97 | 20.8 | 12.81 | 24 |
| Reward/referent power T1 | | | | | | | |
| No reward/referent power T5 | 16.0 | 0.00 | 17.0 | 0.00 | 21.0 | 0.00 | 1 |
| Reward/referent power T5 | 17.0 | 7.90 | 22.2 | 9.19 | 31.9 | 11.85 | 10 |
| **MULTIUNIT SCHOOLS** | | | | | | | |
| No reward/referent power T1 | | | | | | | |
| No reward/referent power T5 | 13.6 | 8.92 | 16.2 | 9.18 | 20.2 | 12.71 | 137 |
| Reward/referent power only T5 | 17.2 | 5.73 | 18.3 | 8.00 | 24.8 | 13.39 | 13 |
| Legitimate power only T5 | 15.7 | 8.38 | 15.6 | 9.24 | 20.8 | 11.06 | 18 |
| Reward/referent & legitimate power T5 | 22.2 | 10.44 | 26.1 | 13.37 | 29.1 | 14.27 | 14 |
| Reward/referent power T1 | | | | | | | |
| No reward/referent power T5 | 11.8 | 14.22 | 14.0 | 17.27 | 13.5 | 15.84 | 4 |
| Reward/referent power only T5 | 16.3 | 12.66 | 21.0 | 8.89 | 33.0 | 2.65 | 3 |
| Legitimate power only T5 | 7.0 | 0.00 | 15.0 | 0.00 | 21.0 | 0.00 | 1 |
| Reward/referent & legitimate power T5 | 25.6 | 15.58 | 26.8 | 14.21 | 34.8 | 21.55 | 5 |

*Some n's may be different from Tables 11 and 12 due to missing data.

In the multiunit schools those who gained or preserved their power communicated more than others regardless of whether they held the team leader position. They also reported the highest mean level of ambition. Those who lost their reward or referent power communicated the least on the average about nonwork matters and reported the lowest mean ambition level.

The data for collaborative teaching, arrayed in the same fashion in Table 21, presents a mixed pattern which I find difficult to interpret.

TABLE 21: T5 Collaborative Teaching and Change in Power Bases from T1 to T5 in Conventional and Multiunit Schools*

| | Mean | S.D. | N |
|---|---|---|---|
| **CONVENTIONAL SCHOOLS** | | | |
| No reward/referent power T1 | | | |
| No reward/referent power T5 | 1.8 | 7.43 | 151 |
| Reward/referent power T5 | .4 | 2.04 | 24 |
| Reward/referent power T1 | | | |
| No reward/referent power T5 | 0.0 | 0.00 | 1 |
| Reward/referent power T5 | 7.0 | 16.36 | 10 |
| **MULTIUNIT SCHOOLS** | | | |
| No reward/referent power T1 | | | |
| No reward/referent power T5 | 5.9 | 11.39 | 131 |
| Reward/referent power only T5 | 3.4 | 6.13 | 13 |
| Legitimate power only T5 | 4.1 | 8.63 | 18 |
| Reward/referent & legitimate power T5 | 9.5 | 12.79 | 13 |
| Reward/referent power T1 | | | |
| No reward/referent power T5 | 0.0 | 0.00 | 4 |
| Reward/referent power only T5 | 12.0 | 20.78 | 3 |
| Legitimate power only T5 | 0.0 | 0.00 | 1 |
| Reward/referent and legitimate power T5 | 3.8 | 4.15 | 5 |

*Some n's may be different from Tables 11 and 12 due to missing data.

In the conventional schools, the ten women who retained their power bases over time showed the greatest mean level of involvement in collaborative teaching. In the multiunit schools, the women who held no power base at either time showed an appreciable mean level of collaborative teaching. Because they did not have high levels of ambition, their involvement may have been a response to the initiative of other individuals.

The more ambitious teachers did not necessarily instigate collaborative teaching relationships even though they tended to hold the power bases. Those who gained reward and referent power and became team leaders demonstrated a mean level of involvement only slightly higher than everyone else. Other teachers who held power in some form showed a smattering of high involvement but mostly participated at a level on par with the majority. Noticeably the five teachers with the lowest mean ambition level had lost reward and referent and also completely avoided collaborative teaching relationships.

## Summary and Discussion

Some evidence supports Cohen's contention that the more professionally ambitious teachers take advantage of whatever avenues exist in the school for them to exert influence on other teachers. In the absence of formal positions of power regular teachers can establish referent and reward power bases respectively through the attractiveness of their own ideas and demonstrations of their ability to see that proposals of other teachers get needed approval. Apparently, they do this by extensive involvement in the communication networks. No evidence suggests they put forth extra effort into the collaborative teaching relationships.

Few women, in both conventional and multiunit schools, actually acquired these reward and referent power bases. To some extent those who held them at T1, retained them through T5. Over time, some also gained and lost power in each type of school but the ensuing incidence and distribution of power showed no appreciable alteration attributable to differences in the instructional organization of the faculty or to variations in the collegial decision making structure.

The more ambitious teachers tended to maintain or acquire reward and referent power in both the conventional and multiunit schools. Reward power was an important source of influence for the more ambitious teachers at T1. Beyond its association with reward power, referent power was not so crucial. At T5, the more ambitious women also tended to hold reward power alone or in conjunction with referent power.

The creation of the team leader positions added a limited number of formal avenues by which teachers could expand their own influence over other teachers. The structure of the multiunit schools thereby created an enhanced opportunity structure for influence but it was not available to all teachers simultaneously. Those teachers that moved into these positions reported the greater mean levels of ambition, but nearly half possessed neither reward or referent power bases. Most had held neither power base prior to the formal establishment of the leader position. Apparently, a teacher need not have established for herself a generally acknowledged power base in order to become a team leader. Those women who managed to acquire this position of legitimate power tended to increase their professional ambition regardless of whether they held reward or referent power.

Not all women who became team leaders involved themselves heavily in the communication network. Those leaders who held reward or referent power, whether established prior to or following unitization tended to engage in the greatest amounts of interaction with other teachers about both classroom and school-wide matters. The other team leaders who held neither of these power bases communicated as much as the other teachers in the multiunit schools.

Apparently, only team leaders who gained and preserved reward or referent power felt it important to establish a high level of involvement in communication among the teaching faculty. I found no pattern which readily identified who tended to actively participate in instructional interdependence.

Packard, et al (1978) examined the communication between team leaders and the principal and emphasized their surprisingly low incidence of contact; principals communicated with less than a third of the leaders about classroom matters and less than a fourth about school-wide affairs. The authors concluded the team leaders did not become crucial links in communication between principals and teachers. Perhaps the team leader position was a powerless office in some cases, perhaps in entire schools, and required no skills in influencing and interacting with others.

I have not examined this possibility but a more detailed school-by-school study of the data would merit a clearer accounting. Such an approach seems particularly important because so few of the women in the 27 schools held reward or referent power bases; quite unexpectedly, only about half of the team leaders held them. Hopefully, it also would help to explain why the team leader position tended to increase ambition in teachers regardless of whether they held reward or referent power.

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