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ABSTRACT

This report examines the relationship between school type and the participation and influence of teachers in school management, and between school type and the principal's influence in certain issues and professional interaction with teachers in elementary schools. The principals were the chief source of information. An introduction explains the purpose of the report. Chapter 2 explains the method in which responses were gathered from the participants of the study and measured. Chapter 3 discusses the relationship between teacher collaboration and teacher participation and influence in school decision-making. The relationship between teacher collaboration and the influence of the principal are examined in Chapter 4. Chapter 5 looks at school characteristics and environmental factors affecting participation and influence. Policy implications of the results of this study are examined in Chapter 6. It was concluded that collaboration leads to greater interaction between principals and teachers. Teachers involved in team teaching and joint teaching demonstrated considerably more influence in school decisions on personnel, administration, pupil management, curricula, and teaching methods than did teachers in schools where there was no collaboration. In schools where there were many teams, much joint teaching, and shared decision-making, principals as well as teachers felt more, rather than less, influential. The appendixes include the sampling procedure, research instruments, and comparative data from teachers. (SK)

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Technical Report No. 48

TEACHER COLLABORATION, PRINCIPAL INFLUENCE, AND DECISION MAKING IN ELEMENTARY SCHOOLS

Rudolph Johnson

June 1976

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Introductory Statement

The mission of the Stanford Center for Research and Development in Teaching is to improve teaching in American schools. Current major operations include three research and development programs--Teaching Effectiveness, The Environment for Teaching, and Teaching and Linguistic Pluralism--and two programs combining research and technical assistance, the Stanford Urban/Rural Leadership Training Institute and the Hoover/Stanford Teacher Corps Project. The ERIC Clearinghouse on Information Resources is also a part of the Center. A program of exploratory and related studies provides for smaller studies not part of the major programs.

This report is drawn from the author's dissertation, "The Relationship between Teacher Collaboration and Teacher and Principal Influence and Participation in School Decision Making" (Stanford University, 1975). Part of this material was presented at the annual meeting of the American Educational Research Association, Washington, D. C., 1975. The study was carried out in the Program on the Environment for Teaching.

Acknowledgments

This research was only possible through the joint efforts of a great many people. Professor Elizabeth G. Cohen organized the effort which brought together a highly able group of professors and graduate students to study organizational issues in schools. Professors W. Richard Scott and John W. Meyer provided continual stimulation and assistance. The staff of the Stanford Center for Research and Development in Teaching was unfailingly helpful. A particular word of appreciation is due computer programmers Penney Jordan and Silvia Solotar. Of course, I owe the greatest appreciation to the principals, superintendents, and teachers who cooperated so willingly to make this research possible. The greatest reward will be if these same people find the results helpful in their day-to-day efforts in schools.

Contents

List of Tables

TEACHER COLLABORATION, PRINCIPAL INFLUENCE, AND DECISION MAKING IN ELEMENTARY SCHOOLS

Rudolph Johnson

I. INTRODUCTION

Questions of power and influence have occupied students of organizations for as long as organizations have been studied.. In recent years, some long-held assumptions concerning control and influence have been challenged. Proponents of participative management practices have argued for years in favor of greater involvement of rank-and-file employees in decision making, claiming greater organizational effectiveness as well as more satisfied, less alienated employees. Other scholars, most notably Arnold Tannenbaum (1968), have taken the study of participation and influence much further. Tannenbaum contends that a high level of influence in organizational affairs by both rank-and-file employees and managers is associated with greater organizational effectiveness and satisfaction. In other words, it is desirable to have both strong and influential managers and strong and influential subordinates. This argument seems to contradict the common sense notion that in order for leaders to be strong and influential in determining the course of events and decisions in an organization, they must exercise a great deal of control at the expense of control or influence by the rank and file.

Tannenbaum's argument is based on the premise that in any human situation, the total amount of influence[1] existing in the situation is not fixed. Power or influence is like love or knowledge. We can all have more of it. Because some attain more of it does not mean that others must have less of it, even in the same group or organization.

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[1]For my purposes, the words "power," "control," and "influence" are used interchangeably.

This way of thinking assumes a nonmechanistic view of organizations and organizational management. Tannenbaum (1968) uses the term "organic," borrowed from the writings of Burns and Stalker (1961) and others, to describe organizations that are characterized by complex networks of control. Members of such organizations are deeply involved with each other in complex ways. The total amount of control or influence exercised is very high; both managers and subordinates are controlled or influenced by others within the situation to a high degree. When comparisons are made between similar organizations doing the same type of work, persons employed in the high-control, "organic" organizations report a higher level of influence on the organization's life than their counterparts in more mechanistic organizations.

Let us apply Tannenbaum's argument to school management. We might expect that if we were to investigate a great many elementary schools, we would find them differing in the degree to which teachers participate in decision making. To put it another way, we might expect that schools would differ in the amount of control teachers exercise over the conduct of the school. To investigate the arguments posed by Tannenbaum, we would need to know whether principals differ in the manner and degree in which they influence decisions within the schools under study, and whether the difference or lack of difference has any relation to the amount of control or influence exercised by the teachers.

Since schools are highly traditional organizations with well-developed expectations about relations among teachers and between teachers and the principal, it is not easy to find elementary schools in large numbers which differ in some significant way from other schools. Fortunately, a recent innovation (or more precisely, cluster of innovations) has resulted in some real differences. This is team teaching, frequently adopted in conjunction with the modification or construction of buildings to provide open space classroom areas.

Even though team teaching and open space classrooms are a major innovation, research on the organizational implications of these changes has been surprisingly sparse. Much of the available research has been and is being conducted at Stanford University and at the University of

Oregon (Pellegrin, 1970; Meyer and Cohen et al., 1971; Marram, Dornbusch, and Scott, 1972; Schiller, 1972). The present study is part of the continuing investigation of organizational factors affecting education conducted at the Stanford Center for Research and Development in Teaching.

One of the most interesting findings in both the Meyer and Cohen study and the Pellegrin study was that when teachers work in teams, they have significantly greater influence on decision making and policy formulation within the school. This fact alone is highly significant for school managers. It may help explain some of the difficulties associated with the introduction of team teaching and open space classrooms in schools. If principals, teachers, or both are unwilling or unprepared to change the patterns of control and influence within the school, it may be very difficult for any form of teaming to work successfully.

The present study takes some of the findings of these two studies as a starting point and carries the investigation further. Both of these studies report perceptions of teachers. They acknowledge that persons in different positions within an organization may have different perceptions of the same situation. Also, these studies focused on extreme cases: schools with full open space and teaming or none at all. Pellegrin focused on a particular form of team teaching, the multiunit elementary school, an organizational structure developed at Wisconsin Research and Development Center for Cognitive Learning and adopted in some form by schools throughout the country. The present study examines a very large sample of elementary schools of all descriptions.

The earlier investigations asked general questions about influence. The results obtained raise the question whether the increased influence described by teamed teachers was only a general sense of influence, and whether the measure of influence can be made specific by asking about actual decisions commonly made in schools.

The influence of the principals was not dealt with in much detail in the earlier studies. The teachers Meyer and Cohen studied described the principals as having less influence than principals in conventional schools. Pellegrin reported that teachers in the multiunit schools were not as dependent on the principal as teachers in conventional schools.

The principals' view of the matter was not asked. A common sense viewpoint would hold that if the teachers see the principals as less influential in teaming and open space schools, the principals must in fact have less influence and must find their positions as managers undermined. Tannenbaum's arguments, however, suggest the opposite: in schools with higher teacher influence, the principals may express the belief that their own influence is also greater. Packard, Carlson, Charters, and Moser (1973) demonstrated that in the schools in the Meyer and Cohen study, the principals' power varied independently of the teachers' power, so that both could be described as high or low in the same school.

Packard and his associates raised another relevant issue. The linking of teachers in some form of team teaching may constitute a reorganization of the work structure (instruction), or it may constitute a reorganization of school governance--two very different things. For example, if teachers meet regularly to discuss issues of common concern but do not actually teach together, the work structure of the school may be essentially untouched. Teachers still relate to pupils in the same way, and there have been no changes in the division of labor. Or if teachers talk primarily to a team leader or unit leader (a position that did not previously exist), and consequently no longer communicate as much with the principal, the governance of the school may be reorganized, leaving the work of teaching unchanged in any fundamental sense. On the other hand, if teachers who previously worked alone now work together daily in the classroom, jointly planning and coordinating all activities, dividing up the work, and having joint responsibility for what happens in the room, we may say that the work structure of the school has been reorganized. The question for research was whether expanded teacher participation and influence in school decision making is associated with a reorganization of the work structure, a reorganization of the governance structure, or both.

Moving toward a More Organic Work Structure

The posited expansion of the influence of teachers through the effects of teaming and open space takes place in organizations in which the teachers' tasks are scarcely controlled or evaluated. Lortie (1969) describes school principals as individuals who are vulnerable in their positions while at the same time having only limited control over subordinates. Principals do not customarily provide detailed and exacting instructions on classroom activities. Instead, school decision making is characterized by a high proportion of low-constraint decisions. Control is focused on points of possible trouble. Otherwise, many options remain open. In this situation, the stage is set for teachers to make decisions together. No new delegation of authority to teachers is necessary.

When the work structure of the school is changed so that teachers teach jointly, they are obliged to make some decisions jointly. In less intensive forms of teaming, as when teachers meet regularly for planning, there is less pressure to reach agreement. In either case, the control and evaluation structure of the school does not militate against joint decision making, even if a long tradition of solo performance by classroom teachers does.

Joint decision making, however, is a phenomenon that has effects beyond the simple accomplishment of decisions. Molnar (1971) found that teachers who actively participate in team processes or who have influence in teams feel that they have greater influence within the school outside the team as well as within it.

Tannenbaum points out that when a participative management system is introduced, the total amount of control exercised in the organization is usually increased. Applying this to the schools in which teachers work in teams, many teachers are exercising control over the work of other teachers (and being controlled in return). One of Pellegrin's major findings was that interdependence developed among the teachers in multiunit schools. Interdependent relationships, in Tannenbaum's terms, are relationships in which control is being exercised--not one-way

12. Decisions establishing school policies on the use of the playground, buildings, and equipment (for the pupils and staff of this school).

These twelve classes of decisions were selected from a much longer list following numerous trial interviews with principals and other school personnel. They cover four broad areas in which decisions are made within local elementary schools: personnel decisions (questions 1, 6, and 8); decisions concerning curriculum and teaching methods (questions 2, 5, and 11); pupil control decisions (questions 3, 9, and 10); and administrative decisions (questions 4, 7, and 12).

These twelve items were used twice in each interview. The first time, each principal was asked to rate the degree of participation for each of five individuals or groups who might share in making that decision. The second time the requested response was stated in terms of influence (the instrument is in Appendix B).

The possible responses offered to the interviewees on the influence set were stated in zero-sum or forced-choice terms, as follows:

1. This decision is basically made at the district level, with consultation with the principal and/or teachers.
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3. In practice, this decision is basically made by teachers, although the principal and perhaps district staff persons are influential and involved.
4. This decision is made at the school level, and in practice is shared quite equally between the principal and teachers.
5. No decision on this matter has been made in this school; question cannot be answered.

Measurement of Principal Influence

In order to test the theory that sharing decision making in specific decisions is compatible with increased influence in a more general sense, a set of questions was developed asking principals to assess their own influence in the life of the school in a general way. (The instrument is in Appendix B.)

do not automatically work together smoothly. Their success as teams may well require special support and some team facilitation skills on the part of the principal. And since working with process issues cannot easily be separated from working on substantive issues, the principal will undoubtedly make some substantive contribution as well. Second, it is probably easier for a principal to be in close contact with a few teams than with numerous individual teachers. He needs only a few good communication links rather than many in order to be reasonably well informed and to exert influence by making his ideas and his judgment known. The result should be greater total influence in the school, since both the principal and the teachers are exerting influence or control on more people concerning more issues.

Adopting teaming on a large scale may contribute to the overall growth of teacher influence in other ways: by facilitating the spread of information, encouraging flexibility, and increasing complexity. Teachers in closely interacting groups probably know more about school-wide affairs than do teachers who work alone. One example is the expanded knowledge such teachers have of the performance and problems of other teachers (Marram, Dornbusch, and Scott, 1972). Although greater familiarity with school-wide problems does not mean that such knowledge will be put to use, it does undermine one reason for not involving teachers in certain decisions, namely that certain judgments must be reserved to the principal or other administrators because only they are in a position to see the total purpose of the school (Campbell et al., 1971).

Teaching in collaborative schools may be characterized as less routine than teaching in conventional schools. Furthermore, teachers in these schools must develop new procedures jointly with other teachers. Even after a group of teachers has worked together awhile it may be less likely for it to fall into an unchanging routine than for an individual teacher to do so, since group members change from time to time and since the flexibility and individualization that are claimed as advantages of collaboration militate against unchanging routine. Hage and Aiken (1969) have shown that less routine activity is associated with broader participation in decision making in various organizational situations.

At the same time, closely interacting teachers may have less need of the principal, or of other administrators, consultants, or committees, for approval, ideas, or other forms of support. If this is true, teachers will have less need to agree with principals as payment for support.

Another factor contributing to teacher influence is the complexity of the team teaching school. Open space and team teaching introduce complexities into the school which did not exist before. The scheduling of teaching activities becomes more complex because more than one teacher is affected by decisions on such matters as when to have noisy activities. Hiring decisions become more complex because relationships with other adults on the staff are more crucial than when teachers are isolated. In many organizational situations greater complexity in decision making is related to the inclusion of more persons in the decision-making process (Cleveland, 1972). Because of the complexities and interrelationships that result from the use of teams and open space, some decisions which were formerly the province of principals may be formally delegated to teams of teachers.

The deep involvement of teachers does not necessarily exclude the principal or render him less influential. On the contrary, as suggested earlier, the principal should be more deeply involved with the staff, with the result that more total influence is exerted in the school. Both the principal and the teachers may correctly believe they are more influential than their counterparts in schools in which there is less interaction.

Analytical Concepts

The term "team teaching" has sometimes been used to refer specifically to arrangements in which teachers conduct joint instruction with the same group of students (Shaplin, 1964). In many situations, however, the isolation of teachers is broken by means of regular planning and consultation sessions with other teachers, without actual joint instruction. For the purposes of this study, such practices were assumed

to be potentially important. Rather than stretch the meaning of the term "team teaching," I have chosen to use the term "teacher collaboration" for any form of regular work-related interaction among teachers.

It is apparent that teacher collaboration in schools has two major dimensions: the proportion of teachers who collaborate, and the intensity of the collaboration. These two dimensions are the basis for a typology of schools that is the major independent variable in this study.

In order to examine teachers' influence in decision making, it was determined through extensive interviews that four types of decisions commonly arise in schools: decisions concerning personnel, general administration, pupil management, and curriculum. (The term "pupil management" refers to such matters as determining which pupils should be assigned to which teachers, and the handling of discipline problems.) It was further determined that decisions differ according to "levels," i.e., the relative number of people affected by a decision. Some decisions affect only a small number of persons for a short time, for example the decision to develop a new teaching unit; others affect everyone in the school, such as the decision to change the entire time schedule. Questions for measuring teacher participation and influence were therefore developed for four decision categories at three levels.

Early in the conceptual stages of the study it was realized that broad participation is compatible with a number of styles of leadership or administration. A highly paternalistic leader may keep track of everything going on in the school and solicit everyone's opinions, but still decide most matters himself. Or an autocratic leader may involve everyone in most decisions as a control device (Owens, 1970). Principals with either of these styles might honestly report the same level of participation by teachers as principals who genuinely share decisions with teachers. Bridges (1967) describes several forms of participation by teachers, ranging from simple discussion to joint decision making. Another difficulty relating to the study of participation is that participative leadership styles are favored in textbooks in educational

administration (Owens, 1970). It is therefore reasonable to expect at least some principals to make a normative response on participation questions--they know that "good" principals are supposed to consult their subordinates.

For these reasons it was decided to make a distinction between "participation" and "influence," and to use both concepts. "Participation," for this study, is defined as "active involvement or consultation" in the process leading up to a decision. "Influence" is first defined as the act of "basically making" the decision in question. (Some decisions under study are "basically made" by the superintendent, others are made by principals, others are made by teachers, and still others are made by several people jointly.) "Influence" is then defined as the degree to which the principal believes his work affects general conditions and general processes within the school, for example, the degree to which staff morale is affected by his work compared with all the other things that affect it. After extensive interviews with principals it was determined that a measure of the influence of principals in the latter sense should include four areas: influence on the quality of relations between the school and its environment, influence on teachers' and pupils' morale and behavior, influence on the performance and achievement of teachers and pupils, and influence on the choice of teaching techniques and tools.

Predictions

On the basis of previous theoretical work and empirical studies, two major predictions were formulated:

1. A high level of collaboration in the teaching task (which is associated with open space school facilities) will be associated with increased teacher participation in decision making in a broad range of school issues, and with increased sharing of influence by principals.
2. High levels of teacher participation and influence in school decision-making processes will be associated with greater self-perceived influence on the part of the principal in the management of the school.

II. DESIGN

Sampling and Data Collection

The data were gathered primarily from 188 principals constituting a stratified systematic sample of the elementary school principals in six counties of the San Francisco Bay Area. The sampling procedure is described in Appendix A. Each principal received a questionnaire to complete prior to being interviewed. Some items from the questionnaire and the interviews are in Appendix B. Paid interviewers with experience in the field of education were extensively trained so as to minimize validity problems relating to interviewer variation and bias.

The results of a study of teachers in a subsample of the schools examined here are briefly compared with the findings of this study in Appendix C.

Measurement of Teacher Collaboration

The principals were asked to list all groups of teachers in their schools who collaborated in planning and/or carrying our their teaching assignments, stating the grade level, the academic subjects involved, and the number of teachers in each group.[2] They were then asked to select criteria that described each team from the following list:

A. Teachers divide children into groups according to either subject matter or ability and rotate students among groups.

B. Teacher group meets at least every other week for one or more of the following purposes: planning of instruction, evaluation of student progress, and/or coordination of student discipline.

C. Teacher group members work directly with each other in instruction; that is, teacher jointly teach the same lesson to the same group of pupils.

D. Teacher group is collectively responsible for its students, who are <u>really</u> assigned to the group as a whole rather than to any individual member.

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[2] Teams of kindergarten teachers only were excluded from the analysis. Kindergarten teachers are frequently described as teaming, sometimes as the only team in the school; however, these "teams" usually consist of two teachers, one of whom has charge of a morning session, the other an afternoon session. Teams that were very limited in scope, such as a team for physical education or music only, were also excluded.

E. Teacher group designates an official leader to coordinate the group's program with other teachers and with your office.

The information obtained in this way was used to construct a typology of schools. Two variables were constructed, one to describe the extensity of teacher collaboration, the other to describe its intensity. Extensity was measured by the proportion of teachers in the school involved in a team that could be described by criterion B, C, or D. Intensity was measured in the same way, and a mean intensity-of-teaming score for each school was then constructed in the following manner: The number of teachers in each team was multiplied by the number of criteria from B, C, and D that the principal had said described the team. This product was summed over all teams, and the sum divided by the number of teachers in teams described by criterion B, C, or D for each school.

These two variables, one describing the extensity of collaboration, the other describing the intensity of collaboration, were then trichotomized and cross-tabulated. All schools in the sample fell into five cells, providing a five-part typology:

Type 0 (48 schools) No Collaboration

These schools were described by the principals as having no teacher collaboration at all, according to the criteria provided.

Type 1 (39 schools) Low Intensity, Low Extensity

Fewer than half the regular classroom teachers in these schools were involved in collaborative groups. Of the groups that existed, the typical group was described as meeting criterion "B," in other words, as meeting together at least every other week to plan instruction, evaluate student progress, and/or to coordinate student discipline. Joint teaching or joint responsibility was rare.

Type 2 (36 schools) High Intensity, Low Extensity

In these schools, fewer than half the regular classroom teachers were involved in collaborative groups, but those who were involved were deeply involved in collaboration. The average collaborative group in the school met criterion C or D or both. In other words, teachers who did work in

groups, worked together in instruction and in some cases had explicit joint responsibility for the same group of children.

Type 3 (44 schools) Low Intensity, High Extensity

In these schools, more than half the regular classroom teachers were involved in collaborative groups, but for the most part were not involved in joint teaching or joint responsibility.

Type 4 (21 schools) High Intensity, High Extensity

In these schools, more than half the regular classroom teachers were involved in collaborative groups, most of them teaching jointly and/or having joint responsibility.

Measurement of Teacher Participation and Influence

With the objective of testing a broad range of situations in which teachers might participate in decision making to a greater or lesser extent, a set of twelve specific questions was developed:

1. Decision to hire a new teacher (the specific decision resulting in a contract offer).
2. Decision to adopt a new major reading curriculum to be used within this school.
3. Decisions assigning pupils to classes and teachers for the next school year.
4. Decision to make changes in the school schedule affecting the whole school.
5. Decision to adopt individualized instruction or some other particular teaching method, in more than one class.
6. A general policy decision on whether to use paid teacher aides in this school, given available funds.
7. Deciding on the agenda for faculty meetings.
8. A decision to alter the professional assignments of staff members to permit greater specialization.
9. A decision on the best course of action for handling a serious disciplinary problem.
10. A decision whether to use ability grouping, or some other form of grouping of pupils, as a general policy for this school.
11. A decision to develop a special course or unit not standard in the curriculum (such as ecology) within this school.

12. Decisions establishing school policies on the use of the playground, buildings, and equipment (for the pupils and staff of this school).

These twelve classes of decisions were selected from a much longer list following numerous trial interviews with principals and other school personnel. They cover four broad areas in which decisions are made within local elementary schools: personnel decisions (questions 1, 6, and 8); decisions concerning curriculum and teaching methods (questions 2, 5, and 11); pupil control decisions (questions 3, 9, and 10); and administrative decisions (questions 4, 7, and 12).

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Other Variables

The relationships between open space architecture and teacher collaboration required special investigation. Information was gathered concerning the amount of open space in each school and the proportion of teachers working in open space areas.

The schools ranged in size from a single teacher to more than fifty teachers. Since size has often been found to be an important variable in organizational studies, its relationship to teacher collaboration was investigated.

Environmental variables might reasonably be expected to have some influence on the dependent variables under study, on the basis of the broad literature on the effects of the environment on organizations. For this study, the environment of the local school is defined as the school district (its size, its wealth, and the degree to which district-level administrators involve themselves in local school affairs); the influence of teachers' organizations, parents, and community groups on school decision making; and the racial and economic characteristics of the community.

Data on per pupil expenditures, district size, and the racial composition of schools were taken from published state and county sources. Interviews with superintendents were conducted during the research of which this study is part, and some very limited use is made of this information. The remainder of these data were taken from interviews with principals.

III. THE RELATIONSHIP BETWEEN TEACHER COLLABORATION AND TEACHER PARTICIPATION AND INFLUENCE IN SCHOOL DECISION MAKING

The sample contained a good distribution of school types, including sufficient schools in the critical Type 4 category to permit the desired comparisons to be made (see Table 1).

TABLE 1

Distribution of Types of Teacher Collaboration in Sample
(total N = 188)

	Type	Percentage	Number of schools
0	No Collaboration	26%	48
1	Low Intensity Low Extensity	21	39
2	High Intensity Low Extensity	19	36
3	Low Intensity High Extensity	22	44
4	High Intensity High Extensity	11	21

Teacher Participation in Decision Making for All Schools

Overall, without consideration of the degree of teaming or collaboration among teachers within schools, in what kinds of decisions are teachers most likely and least likely to participate?

It will come as no surprise to learn that teachers were reported to participate most fully in decisions concerning curricula and teaching methods, and least in administrative and personnel decisions. A sharp division is apparent between these broad decision categories, one of which is traditionally the prerogative of management, the other of teachers. Most principals said that curriculum decisions would "never" or "almost never" be made without consulting teachers. Only a small minority said the same for personnel and general administrative decisions.

The principals' ratings of the level of teacher participation were summed for the three decision questions in each of the four categories. Table 2 shows the percentage of schools whose principals stated that the teachers participated at the maximum level ("always" or "almost always" consulted or involved) in all decisions in each category.

TABLE 2

Percentage of Principals Reporting High Teacher Participation

Type of Decision	Percentage
Personnel	22%
Administration	19
Pupil Management	58
Curriculum	75

The Relationship between Teacher Participation and School Type

Does the manner in which teachers are organized for the work of teaching affect participation in decision making? In order to examine participation by school type, the participation scores in the four decision categories were trichotomized (in the case of personnel, administrative, and total decisions) or dichotomized (in the case of curriculum and pupil management decisions).[3] The percentages of each type of school in which teachers were reported "high" in participation are shown in Table 3.

Teacher participation in personnel and administrative decisions shows sharp differences among school types. Teachers are much more likely to be active participants in personnel decisions in schools with extensive collaboration (Types 3 and 4), than in schools with no collaboration (Type 0). In administrative decisions, there is a sizable difference between Type 3 and Type 4 schools. In this case, extensive participation by teachers is associated with the situations in which teachers work together in the daily teaching task. Sharp differences between Type 4 schools and all the other types will be shown in the data on influence. In all school types teachers participate at a high level in pupil management decisions and curriculum decisions.

[3] In the case of participation in pupil management and curriculum decisions, the modal response was 5, making it appropriate to dichotomize the variable.

TABLE 3

Percentages of Schools with High Teacher Participation Scores, by School Type

School Type	Personnel Decisions	Administrative Decisions	Pupil Management Decisions	Curriculum Decisions	Total Teacher Participation Score
Type 0 (N=48)	17%	22%	64%	69%	22%
Type 1 (N=39)	31	33	51	72	31
Type 2 (N=36)	28	31	39	75	36
Type 3 (N=44)	45	37	72	79	46
Type 4 (N=21)	57	57	62	81	62

The "total teacher participation score" in Table 3 is an index derived by summing the scores on all twelve decision participation questions (section II). This index was then trichotomized. Teachers in Type 4 schools are nearly three times as likely as teachers in Type 0 schools to fall in the top one-third of schools in level of teacher participation.

In Type 4 schools the great difference between the participation by teachers in matters traditionally left to management and those considered the province of teachers appears to be closing. This will become more apparent in the influence data presented below.

In summary, the first major conclusion of the study is, as expected, that the greater the intensity and extensity of teacher collaboration in daily work, the more likely it is that teachers will participate in school decisions which in schools with other working arrangements are left primarily to principals. Greater participation by teachers as reported by principals does occur in schools with extensive (though not intensive) teacher teaming, but it is sharply increased in schools in which teachers team intensively. These are clearly schools in which the work structure, not merely the governance structure, has been changed.

The Relationship between Teacher Influence and School Type

To push the argument further, let us examine the principals' responses to a slightly different question. Remember that the full set of decision questions was used twice with each principal. The first time, the responses were ratings of the degree of participation by teachers and others in each decision. The second time, a choice was forced: the principal was asked to state "who basically makes" each decision.

The results clearly indicate that when teachers collaborate in the work of teaching, they "basically make" or share in making many more decisions within the school--not only decisions within their own classrooms, but decisions affecting the whole school.

Table 4 (parts A, B, C, and D) reports the percentage of times each type of decision was reported to be made either by the principal and teachers jointly or by teachers alone for each school type. Data on the proportion of each type of decision basically made by teachers (alone) are reported further on.

TABLE 4

Teacher Influence in Decision Making
(percentages of principals reporting decisions made by teachers alone or by teachers and principal)

A. Personnel Decisions

School Type	Using Paid Aides	Hiring a New Teacher	Changing Staff Assignments
Type 0 (N=48)	43%	4%	47%
Type 1 (N=39)	46	5	38
Type 2 (N=36)	47	11	25
Type 3 (N=44)	59	11	39
Type 4 (N=21)	70	24	62
All Schools (N=188)	51	10	41

B. Administrative Decisions

School Type	Changing School Attitude	Developing Policies on Use of Buildings and Equipment	Making up Agenda for Staff Meeting
Type 0 (N=48)	49%	60%	17%
Type 1 (N=39)	54	63	28
Type 2 (N=36)	47	50	36
Type 3 (N=44)	73	68	30
Type 4 (N=21)	76	91	48
All Schools (N=188)	58	64	29

Note: The decision in the first column is a major policy decision, that in the second is a midlevel decision, and that in the third is a technical or work-level decision (see p.26).

It is apparent that few teachers anywhere have a strong impact on hiring decisions (Table 4, A). Teachers are somewhat more likely to have such an impact in Type 2 or Type 3 schools, and are much more likely to influence hiring decisions in Type 4 schools. Other personnel decisions are much more commonly shared with teachers, though there are differences among individual decisions. The score for changing staff assignments is similar across school types except for Type 4 schools, where it jumps sharply. The score for deciding to use paid aides increases for Type 3 schools, then again for Type 4 schools. The difference between them appears reasonable if one remembers that in Type 3 schools most of the teachers meet regularly in teams, but for the most part do not teach together, whereas in Type 4 schools the teachers teach together.

When contact between teachers is regular but limited to planning meetings, it is less important for the principal to consult teachers about changing the work assignment of a fellow teacher than in the case where a changed assignment means a new set of daily working relationships, as in Type 4 schools. It is the same intensity of daily working relationships that demands greater teacher influence on the initial hiring decision for Type 4 schools. In other words, when teachers actually teach together, they have more to say about whom they teach with.

The decision about using aides is a general policy decision. Teachers in Type 4 schools are very influential, and teachers in Type 3 schools have a good deal of influence on this issue as well. It seems reasonable that greater teacher influence in general policy issues that are one step removed from an actual work situation should appear in Type 3 schools, which are characterized by a well-established network of teacher planning meetings in which such policies would naturally be discussed.

Next, let us examine administrative decisions (see Table 4, B). These decisions concern issues which may have little effect on work within classrooms. Does teacher influence really reach out beyond the classroom doors more fully when teachers collaborate behind those doors? The answer is yes.

In all three administrative decisions the scores of Type 4 schools are a good deal higher than those of other types. School policies on building and equipment usage have become the concern of the teachers in 91 percent of Type 4 schools. The agenda for staff meetings is initiated by teachers as well as by the principal in about half the Type 4 schools.

The scores for "changing school schedule" are relatively high for both Type 3 and Type 4 schools, as in the case of "using paid aides." This finding suggests once again that in Type 3 schools certain issues of general concern are likely to be heavily influenced by teachers. However, in Type 4 schools teacher influence is much higher in the responses to the other questions in Table 4, B, indicating that <u>there is another level of influence by teachers that is not reached unless the working relationships of most of the staff are characterized by intense collaboration</u>, as in Type 4 schools.

The traditional isolation of both teachers and principals in schools with no collaboration at all is illustrated by the very low score on "working up the agenda" in Type 0 schools. In these schools, the principal makes up the agenda in all but a few cases; the teachers simply come to meetings planned by someone else, rather than having a voice in what is to be discussed.

TABLE 4 (C and D)

Teacher Influence in Decision Making (Continued)
(percentages of principals reporting decisions made by teachers alone or by teachers and principal)

C. Pupil Management Decisions

School Type	Grouping Pupils for Instruction	Assignment of Pupils	Handling of Major Discipline Problems
Type 0 (N=48)	57%	64%	32%
Type 1 (N=39)	80	64	23
Type 2 (N=36)	50	70	33
Type 3 (N=44)	77	71	32
Type 4 (N=21)	71	90	48
All Schools (N=188)	67	70	32

D. Decisions Concerning Curriculum and Teaching Methods

School Type	Choosing a Major Curriculum	Development of Special Courses or Units	Choice of Teaching Methods
Type 0 (N=48)	49%	68%	72%
Type 1 (N=39)	62	90	89
Type 2 (N=36)	56	75	75
Type 3 (N=44)	66	84	82
Type 4 (N=21)	76	90	95
All Schools (N=188)	60	80	81

Note: The decision in the first column is a major policy decision, that in the second is a midlevel decision, and that in the third is a technical or work-level decision.

The scores for teacher influence in pupil management and curriculum are given in parts C and D of Table 4. These are decisions in areas more traditionally the prerogative of teachers, and more directly affecting work inside classrooms. First, examine the results grouped under "pupil management decisions" (Table 4, C). In most schools, teachers have something to say about the assignment of pupils to teachers for the next school year. The principal has to balance the teachers' judgment and desires with the demands of parents and his own independent

judgment. In Type 4 schools, however, it is a rare principal who does not accord a major role to the teachers in these pupil assignment decisions. This situation indicates that the management of the flow of pupils to and among teachers has moved much more into the hands of teachers in these schools.

Major disciplinary matters are traditionally the concern of the principal alone. The finding that principals more often share these problems with teachers in Type 4 schools indicates that the traditional line between the roles of principal and teacher becomes less sharp when teachers collaborate intensively.

The question about pupil grouping was phrased as a general policy question for the school, similar to the questions concerning teacher aides and school schedules. In the responses, Type 3 and 4 schools both showed high influence, once again confirming that teachers in schools with extensive teaming (whether intensive or not) have higher influence in general policy issues than other schools. In this case, however, the score in Type 1 schools is also relatively high.

Finally, look at teacher influence in decisions concerning the curriculum and teaching methods (Table 4, D). In this area, most principals in all school types reported that teachers are influential. Nevertheless, Type 4 schools consistently had the highest scores. The contrast between the extremes is particularly striking. In schools with no collaboration (Type 0), the scores are much lower than in Type 4 schools, even in choice of teaching methods, which has usually been considered the decision of individual teachers. (This is particularly noteworthy in light of the data presented in section IV on the perceived influence of principals on the choice of teaching methods.)

The responses to the question concerning curriculum repeats a now-familiar pattern (Table 4, D, column 1). Type 3 schools have a higher score than Types 0, 1, and 2, but not as high as Type 4. The general principle is that in major school policy questions, there are strong differences between schools with no collaboration and those with extensive collaboration, regardless of whether that collaboration is intensive or not. The differences between Types 3 and 4 are not great.

In gaining greater teacher influence in formulating major school policies, the intensity of collaboration is less important than the fact that the teachers are in regular contact with each other on teaching issues.

When the work arrangements are fundamentally changed so that teachers work together, however, teacher influence increases sharply in a range of other school decisions that are not greatly affected by less intensive collaboration.

The Statistical Significance of the Relationships

The school typology used in this study is not a one-dimensional scale. If it is treated as a scale, the percentages in Table 4 have statistical significance on the basis of rank ordering. The teacher influence scores for Type 4 schools are higher than those for other school types on eleven out of twelve questions. Type 3 schools have higher scores than Types 0 - 2 in six out of twelve cases. Type 0 schools are lowest in seven out of twelve cases; Type 2 schools are lowest in four of the other five cases. Between them, Types 0 and 2 account for eleven of the twelve lowest teacher influence scores. Type 2 schools (characterized by high intensity, low extensity of collaboration) are thus the chief reason for the lack of perfect rank ordering.

Spearman rank order correlations were computed for all schools on all questions using the formula $r_s = 1 - \frac{6\Sigma d_i^2}{n(n^2 - 1)}$ (see Table 5). The rank order correlations are moderate. Chi square analysis, taking no account of the ordering of school types, produced significant differences among all school types on five of the decision questions: changing staff assignments ($\chi^2 = 8.48$, df = 4, $p<.10$), changing the school schedule ($\chi^2 = 10.36$, df = 4, $p<.05$), developing school policies ($\chi^2 = 10.19$, df = 4, $p<.05$), grouping pupils ($\chi^2 = 11.36$, df = 4, $p<.05$), and developing special courses or units ($\chi^2 = 9.01$, df = 4, $p<.05$).

TABLE 5

Rank Order Correlations of School Type with Teacher Influence

Decision Question	r
Using paid aides	1.00**
Hiring a new teacher	1.00**
Changing staff assignments	.60
Changing school schedule	.70
Developing school policies on buildings and equipment	.70
Making up agenda for staff meeting	.95*
Grouping pupils for instruction	.10
Assigning pupils	1.00**
Handling of major discipline problems	.50
Choosing a major curriculum	.90*
Developing special courses or units	.70
Choosing teaching methods	.70

*p < .05
**p < .01

Table 6 shows the results of a comparison of overall teacher influence in Type 4 schools and all others. All the schools in the sample were divided into two groups, one consisting of the Type 4 schools, the other consisting of Types 0 - 3. Phi coefficients were computed using the formula $\phi = \frac{ad-bc}{\sqrt{(a+b)\ (c+d)\ (a+c)\ (b+d)}}$. Ten of the twelve decision questions produced results in which the principals' responses for Type 4 schools are significantly different from those for all other schools.

Given these results, the probability of finding higher teacher influence in schools with extensive and intensive teacher collaboration than in schools without such collaboration is high. It is even higher if one compares schools with no collaboration at all to schools in which most teachers work together intensively.

TABLE 6

Phi Coefficients Contrasting Teacher Influence in Type 4 Schools and All Other Schools

Decision Question	ϕ	p
Using paid aides	.13	.05
Hiring a new teacher	.17	.01
Changing staff assignments	.15	.02
Changing school schedule	.13	.05
Developing school policies on buildings and equipment	.20	.01
Making up agenda for staff meeting	.14	.05
Grouping pupils for instruction	.04	NS
Assigning pupils	.16	.02
Handling of major discipline problems	.12	.05
Choosing a major curriculum	.12	.05
Developing special courses or units	.09	NS
Choosing teaching methods	.13	.05

Examining Influence on Decision Making by Decision Levels

The twelve decision questions (section II) were constructed so that four might be considered major policy questions affecting the whole school, four might be considered middle-level decisions, and four might be considered technical decisions or decisions on the level of daily work. The distinction between levels is in the number of persons affected by the decision and/or the duration of the impact of the decision. In the case of the midlevel decisions, the distinction is imprecise; distinctions between broad policy decisions and "one-shot" workaday decisions are much clearer. The purpose of distinguishing between levels is to examine the scope of the expected increase in teacher influence. It was expected that increased influence would appear at all levels. Differences between levels have already been pointed out in the discussion of differences in scores between major policy questions and other questions, where it was shown that in policy-level decisions, the scores are highest for both Type 3 and Type 4 schools.

In Table 7, principals' responses to decision questions are averaged over four questions at each level. This table highlights the point that on policy issues, teacher collaboration of a less intensive form is associated with greater teacher influence, while in midlevel and/or work-level decision making, teacher influence increases chiefly in schools where teachers work together intensively.

TABLE 7

Average Teacher Influence Scores across Decision Levels

School Type	Policy-Level Decision	Midlevel Decision	Technical or Work-Level Decision
Type 0 (N=48) (No collaboration)	50	49	42
Type 1 (N=39) (Low int., Low ext.)	60	56	45
Type 2 (N=36) (High int., Low ext.)	50	51	42
Type 3 (N=44) (Low int., High ext.)	69	59	45
Type 4 (N=21) (High int., High ext.)	74	74	63

Separating Decisions Made by Teachers Alone from Decisions Made Jointly with Principals

Do principals delegate more decisions or share more decisions in schools where there is high teacher collaboration? The interview instrument permitted the principals two choices for attributing heavy influence to teachers:

> In practice, this decision is basically made by teachers, although the principal and perhaps district staff persons are influential and involved. (Delegated decisions.)

This decision is made at the school level and in practice is shared quite equally between the principal and teachers. (Shared decisions.)

Table 4 combines these responses. When the two components are presented separately, it becomes apparent that the change between school types occurs primarily in the number of shared decisions, as reported by principals. Principals are not delegating. Instead they are more deeply involved with teachers in decision making. This is a distinction of great importance. To clarify it, let us look at the decisions reported by principals as made by teachers.

Table 8 presents the average percentage of times principals reported that decisions were made "basically by the teachers." (Note that the distinction between personnel and administrative decisions, on the one hand, and pupil management and curriculum decisions, on the other, reappears.) These percentages change very little across school types.

TABLE 8

Average Percentage of Decisions Made "Basically by Teachers," by School Type

School Type	Personnel Decisions	Administrative Decisions	Pupil Management Decisions	Decisions Concerning Curriculum and Teaching Methods
Type 0 (N=48)	7%	11%	13%	27%
Type 1 (N=39)	6	5	18	33
Type 2 (N=36)	4	5	10	26
Type 3 (N=44)	11	8	19	33
Type 4 (N=21)	8	8	11	40
All schools (N=188)	7	8	15	32

Up to this point the data show that teacher influence increases when schools are characterized by widespread teacher collaboration, particularly when the collaboration is intensive. In such schools (Type 4), teacher influence increases across all levels and all decision

areas, and the increase is greatest in those areas in which teachers traditionally have the least influence. Table 8 suggests, by inference, that the increased influence for teachers comes about through greater sharing in decision making by the teachers, not through the delegation of decision making to teachers, at least as reported by principals. Thus, it appears that Type 4 schools are characterized by a much higher rate of work-related interaction between teachers and principals, a point that was made earlier in discussing the participation data and that will be explored more fully when we examine the principals' influence.

The differences between school types in the number of decisions made by teachers alone is not great, with one interesting exception. The detailed scores for the single question on "developing special courses or units" is of special interest (see Table 9). If Table 9 is compared with the figures in the middle column of Table 4, D, it becomes apparent that in this particular case, Table 4 does not tell the whole story about the differences between school types. In the majority of Type 4 schools this decision has been handed over to the teachers. This is the only decision for which that is the case.

TABLE 9

Percentage of Principals Reporting Decisions to Develop Special Courses or Units Are Made "Basically by the Teachers"

School Type	Percentage
Type 0 (N=48)	23%
Type 1 (N=39)	33
Type 2 (N=36)	31
Type 3 (N=44)	32
Type 4 (N=21)	57
All Schools (N=188)	32

The Influence Structure in Elementary Schools

Are we dealing with an entirely different structure of influence in collaborative schools, or only with changes in the amount of influence? In other words, does the amount of influence increase across all kinds of decisions in such a way that the matters in which teachers have least influence in Type 0 schools are also the matters in which teachers have least influence in Type 4 schools? Or, as seems possible, does teacher collaboration result in a restructuring of influence?

To examine this question, a coefficient of concordance was calculated, using the formula $W = \frac{12\ S}{m^2N(N^2 - 1)}$, where $S = \Sigma(\text{ranks})^2 - \frac{(\Sigma\ \text{rank})^2}{N}$. We have five school types, for each of which we have data on twelve decision questions. The coefficient of concordance, W, is .87. This result may be interpreted as indicating that while the amount of teacher influence in Type 4 schools is greater than in other schools, the structure of influence remains very much the same across all school types. Issues in which teachers are least influential in Type 1 schools are very likely to be the same as the issues in which teachers are least influential in Type 4 schools.

Conclusions

The major findings up to this point are as follows:

1. Teacher participation in decision making in elementary schools increases substantially when teachers collaborate. Increases are noted with increasing intensity and extensity of collaboration, but the sharpest increase occurs in schools in which teaming is both extensive and intensive.
2. The association between greater collaboration among teachers and greater participation in decision making is confined to the formal, local school organization.
3. There is a consistently higher level of influence of teachers in schools characterized by intensive and extensive teacher collaboration, compared to all other schools. Very consistently, schools with no collaboration or very little collaboration have the lowest scores on teacher influence, and schools with the most extensive and intensive collaboration have the highest participation and influence scores. The increase in

teacher influence is not linear or systematic across all five school types, but varies from type to type and decision to decision. However, the most significant overall expansion of teacher influence is associated with changes in the working arrangements of teachers, or with what we have called intensive teacher collaboration.

4. In schools with extensive but not intensive teacher collaboration, the data indicate a substantial increase in teacher influence in major policy decisions, but not in decisions more closely related to the daily teaching tasks.

5. Schools characterized by a small proportion of the teachers engaged in intensive collaboration (Type 2 schools) tend to have less teacher influence than schools with a small proportion of teachers engaged in less intensive teaming (Type 1 schools), or even than Type 0 schools, perhaps because of the presence of two very different working arrangements among teachers within the same school leading to divisiveness, or at least limited interaction, among the staff.

6. The increase in teacher influence is related to a greater number of decisions shared with the principal, not delegated by the principal. The data suggest that in Type 4 schools the principal is much more deeply involved with teachers in a wide range of decision processes than is the case in schools with little or no teacher collaboration.

7. Consistent with studies of a variety of organizations by Tannenbaum and others, increased influence in schools does not mean a change in the structure of influence in the school, but only in the amount of influence. Teachers remain most influential in curriculum issues, least influential in personnel matters, in all schools.

IV. THE RELATIONSHIP BETWEEN TEACHER COLLABORATION AND THE INFLUENCE OF THE PRINCIPAL

One of the major arguments in this report is that the sharing of decision making with teachers will not undercut the influence of principals over the course of events in the school. As mentioned in section I the theoretical background of this argument is taken from the work of numerous social scientists who take issue with the generality of the assumption that an increase in the power of one party in a group, organization, or society must be accompanied by a corresponding decrease in

the power of others. "The total amount of power in a social system may grow, and leaders and followers may therefore enhance their power jointly" (Tannenbaum, 1968). If so, then it is possible for both teachers and principal to have greater influence within schools at the same time. The converse is also possible: the principal may be quite powerless, and the teachers the same. Either of these situations may exist regardless of the role of the district administration, the teachers' organization, or any other group. Questions concerning those groups are examined later in section V.

In this study the number of decisions made by or shared with teachers (as reported by principals) have been compared across school types. In schools with widespread and intensive teacher collaboration, teachers make or share in making many more decisions. How do the principals of these schools see their role? Do they see themselves as less influential in the conduct of these schools? Is the principal's job undercut when teachers assume a wider decision-making role?

In order to study these questions, I asked principals to rate their own influence in the operation of the school on a five-point scale, covering eight separate general areas of school life and concern (see Appendix B).

Principal Influence over All Schools

Table 10 presents the overall results of the ratings without regard to the amount of collaboration among teachers in schools. The responses are divided into four categories: (1) influence on relationships with the outside world, including both parents and the district office, (2) influence on the morale and behavior of teachers and pupils, (3) influence on the performance and achievement of teachers and pupils, and (4) influence on the selection of curricula and teaching methods.

TABLE 10

Principals' Influence in Elementary Schools, by Response Category (N=188)

Areas of Influence	N	Extremely or Very Influential Principals (Self-report) Percent
1. Relationships with the outside world (school district and parents):		
a. Carrying out district policies	167	89%
b. Parental attitudes	151	80
2. Morale and behavior of teachers and pupils:		
a. Pupil behavior	155	82
b. Teacher morale	158	84
3. Performance and achievement of teachers and pupils:		
a. Improving teacher performance	96	51
b. Pupil achievement	77	41
4. Selecting the curriculum and teaching methods:		
a. Choosing the curriculum	110	59
b. Choosing teaching methods	45	24

Important differences among these categories are apparent. The great majority of principals perceived themselves to be highly influential in carrying out the policies of the district. (The interview questionnaire did not ask about their perceived influence in helping develop the policies of the district.) At the other extreme, a

minority of principals perceived themselves to be highly influential in determining the teaching methods used in their schools, or highly influential in the educational achievement of children. A slim majority saw themselves as highly influential in helping teachers improve their performance and in choosing curricula.

In textbooks of educational administration, it is not uncommon for stress to be laid on the principal's ability to improve the performance of teachers, and through the teachers, the performance of pupils. This is the role of the principal as an instructional leader (Campbell et al., 1971). The difficulty of influencing teacher performance and pupil achievement is widely recognized, however. Gross and Herriott (1965) provide empirical evidence for differences among principals in their ability to do so; and many people would argue that it is unrealistic to expect principals to be influential in these matters because of the structure of roles and expectations for principals and teachers.[4]

Whatever district administrators or professors of administration may expect of principals, the principals interviewed in this study did not see themselves as highly influential in matters closest to the educational process. Their influence was stronger in relating to the world outside the school--to the district office and the parent community. The principals also described themselves as highly influential in the general morale of teachers and the general behavior of pupils.

The principal thus appears to be a person who is responsible for establishing and protecting an environment in which teaching and learning can take place. Whether teaching and learning take place successfully within that environment is beyond the strong influence of many principals, as they see the situation.

There is nothing new in this finding. It is a reaffirmation of a picture of the principal's role developed by Becker in 1953:

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[4]For an informative study of the role of the principal, using anthropological methods, see Wolcott (1973).

> Becker's subjects (Chicago public school teachers) relied on the principal, acting as an official in the school bureaucracy, to "back them up" against disgruntled parents and to support their disciplining of pupils. In the area of pupil-parent relations, the teachers accepted the official authority of the principal as legitimate, although they defined how it should be used. These teachers, on the other hand, did not accept his official authority as legitimate in areas of curriculum and instruction. Here they viewed the principal as a colleague and expected him to base his supervision of instruction on professional competence, giving constructive criticism rather than orders. (Bidwell, 1965)

Lortie (1969) quotes studies which also reaffirm the findings emerging from the present study. He speaks of the teacher granting the principal "clear hegemony over matters which do not bear directly upon her teaching activities." Thus, "the basis for zoning decisions is laid; the principal's primary sphere is the school-at-large, the teacher's is the classroom" (p. 36).

This "decision zoning" appears very clearly in the sharp contrast between the upper and lower halves of Table 10. Lortie cites studies which indicate that principals are very reluctant to intervene in classroom affairs, except in the case of beginning teachers. In matters of curriculum and instruction, teachers wanted principals to be available to help, but only on the teachers' terms.

Principal Influence in Different School Types

Do the relationships shown in Table 10 remain the same in schools whose internal organizational structure for work differ? We have seen that principals in Type 4 schools make fewer decisions alone than principals in other schools. Does this mean that principals in these schools have even less influence than other principals in either general school matters or instructional and classroom matters?

Table 11 provides an analysis of principal influence by school type. The first conclusion to be drawn from it is that principals in Type 4 schools do not perceive themselves to be less influential than principals in other schools, even though they describe themselves as

TABLE 11

Differences in Reported Influence of Principals, across School Types
(percentages of "very" or "extremely" influential principals)

School Types	A Relationships with the local school environment:		B Morale and behavior of pupils and teachers:		C Performance and achievement of pupils and teachers:		D Choice of curriculum and teaching methods:	
	Implementing district policies	Influencing attitudes of parents	Pupil behavior	Teacher morale	Improving performance of teachers	Pupil achievement	Choice of curricula	Choice of teaching methods
Type 0 (N=48)	87%	85%	89%	85%	51%	32%	43%	28%
Type 1 (N=39)	95	77	90	87	54	44	62	18
Type 2 (N=36)	94	86	83	86	50	53	64	25
Type 3 (N=44)	89	80	82	82	57	34	57	18
Type 4 (N=21)	95	86	76	95	48	52	91	43
All Schools (N=188)	89	80	82	84	51	41	59	24

making fewer decisions than principals in other schools. This confirms one of the major predictions of this study. There is more to the story, however. Column D of Table 11 reveals that principals in Type 4 schools perceive themselves as having much more influence in the choice of curriculum and teaching methods used in their schools than other principals. This finding will be examined in detail.

The influence of principals, according to their self-reports, is generally high in the development of relationships with the parent community and the district administrators, and also in the development of satisfactory teacher morale and student behavior. In the technical matters of pupil and teacher performance, and in the selection of working tools that may affect this performance, however, principals generally see themselves as much less influential. We would therefore expect influence on curricula and teaching methods to be low. Yet in Type 4 schools principals have very high influence in the selection of curricula and teaching methods. The principals' description of their influence in pupil achievement is also higher in Type 4 schools.

In pupil achievement, the reasons for this difference must be indirect: the principal feels he has influenced the teachers toward better pupil achievement. The case is clearer in the matter of the choice of teaching methods and curricula. Specific decisions are at issue here. Certain methods and materials either are or are not used, and we would expect principals to have a clear idea of whether they had much to say about the choices made. Except in Type 4 schools most principals stated that they had little influence over these matters.

In the matter of the choice of curricula, one explanation for higher principal influence on Type 4 schools might be that these decisions have shifted to the local school from the district, so the principals' sense of greater influence stems from freedom from district influence rather than from influence with teachers. In this context, let us examine carefully the whole question of district relationships with Type 4 schools.

The Shift in Location of Decision Making by School Type

The decision questions listed in section II concern school-level issues in which principals are customarily involved. When the principals in this study were asked to rate their own degree of involvement in these issues, they rated it very high.

On each of the twelve decision questions, principals rated their own degree of involvement on a five-point scale ranging from would never (or almost never) be consulted or become actively involved to would always (or almost always) be consulted or become actively involved. When summed over all twelve questions, the modal response of principals was 5, or total involvement (92 cases). The mean response was 48.8, the median, 49.5.

This level of involvement is so high in all schools that differences between school types cannot appear. These differences come into focus in the "forced choice" questions, which asked the principal to state "who basically makes" the decision in question. The choices were:

1. This decision is basically made at the district level, with consultation with the principal and/or teachers.
2. This decision is basically made by the principal, with consultation with teachers and/or district administrators.
3. This decision is basically made by teachers, although the principal and perhaps district staff persons are influential and involved.
4. This decision is made at the school level, and in practice is shared quite equally between the principal and teachers.
5. No decision on this matter has been made in this school; the question cannot be answered.

Across all decision questions, principals in schools with limited teacher collaboration described many more decisions as "basically made by the principal" than did principals in Type 4 schools. In schools where teachers most commonly work alone, the principal is also much more likely to "work alone," in the sense that he describes many more decisions as made "basically" by himself.

In Type 4 schools there is a tendency toward greater teacher participation and influence. Principals of Type 4 schools reported the fewest decisions "basically made" at the district level. Table 12 provides a summary. The figures are percentages of schools in which the principal describes decisions as basically made at one of three levels: district level, principal level, or teacher level and/or teachers-with-principal. The percentages are averages for three questions in each category of decision making.

TABLE 12

Decision-Making Areas and Levels
(percentages)

School Type	District level	Principal level	Teacher/Principal level
	A - Administrative Decisions		
Type 0 (N=48)	5%	53%	42%
Type 1 (N=39)	1	51	48
Type 2 (N=36)	5	51	45
Type 3 (N=44)	2	41	57
Type 4 (N=21)	3	25	71
	B - Pupil Management Decisions		
Type 0 (N=48)	6	43	51
Type 1 (N=39)	1	43	56
Type 2 (N=36)	2	45	51
Type 3 (N=44)	3	37	60
Type 4 (N=21)	3	25	70
	C - Decisions on Curriculum and Teaching Methods		
Type 0 (N=48)	9	23	63
Type 1 (N=39)	6	10	80
Type 2 (N=36)	11	19	69
Type 3 (N=44)	5	16	77
Type 4 (N=21)	3	6	87
	D - Personnel Decisions		
Type 0 (N=48)	26	36	31
Type 1 (N=39)	29	38	30
Type 2 (N=36)	26	39	28
Type 3 (N=44)	22	36	36
Type 4 (N=21)	6	37	52

Note: When the raw percentages do not total 100% the reason is that a small percentage of principals responded that "No decision on this matter has been made in this school."

Notice the pattern in Table 12. Administrative decisions are progressively shifted downward from the principal, from Type 0 to Type 4, so that decisions are more commonly shared with teachers in Type 4; the same is true for pupil management decisions. The greatest shift takes place in personnel decisions. In each of the three specific decisions most often reported by all principals as made at the district level, there is a strong downward shift to the local school level in Type 4 schools (see Table 13).

TABLE 13

Decisions Commonly Made at the District Level, by School Type (percentages)

School Type	District level	Principal level	Teacher/Principal level
	Adopt a new major reading curriculum for the school		
Type 0 (N=48)	17%	34%	49%
Type 1 (N=39)	13	23	62
Type 2 (N=36)	22	19	56
Type 3 (N=44)	7	25	66
Type 4 (N=21)	5	14	76
	Hire a new teacher		
Type 0 (N=48)	55	38	4
Type 1 (N=39)	45	50	5
Type 2 (N=36)	47	42	11
Type 3 (N=44)	43	46	11
Type 4 (N=21)	19	57	24
	Use paid aides in the school		
Type 0 (N=48)	15	30	43
Type 1 (N=39)	26	18	46
Type 2 (N=36)	22	25	47
Type 3 (N=44)	18	7	59
Type 4 (N=21)	0	20	80

Tables 12 and 13 indicate that (still from the viewpoint of principals) a downward shift in decision making from the district to the

local school takes place in Type 4 schools with regard to personnel and curriculum decisions. The tables show how the downward shift continues within the local school. In curriculum decisions, administrative decisions, and pupil management decisions, the principals of Type 4 schools reported fewer decisions made "basically by the principal"; in personnel decisions the principal's position as a solitary decision maker is still important, and a substantial shift has occurred downward from the district level. Personnel decisions in Type 4 schools are more likely to be made in the local school, rather than in a district office.

Let us now return to the issue of whether the reported increased influence of principals on curriculum and teaching methods is due to the fact that the locus of decision making in these matters has moved down to the principal from the district.

This argument cannot apply to the issue of the principal's influence on teaching methods. Decisions on teaching methods are uniquely the province of teachers, and the district has usually had little influence there. It is hardly credible that increased principal influence on making decisions about teaching methods in these schools comes somehow from a changed relationship with the district office. But what about curriculum?

In contrast to decisions on teaching methods, there has been an important downward shift in the location of major curriculum decisions to the local school, especially in the case of Type 4 schools. However, notice that the location of such decisions in Type 4 schools is overwhelmingly with the teachers or teachers jointly with the principal. The downward shift here has given the <u>teachers</u> more influence on a matter not infrequently settled at district levels. That <u>could</u> mean that the principal is in a better position to influence the decision, since presumably he can influence his own staff more than he can influence the district-level staff.

However, remember one additional finding reported in section III: Principals in Type 4 schools indicated that decisions on the development of special courses or units have become, in a majority of cases, the

teachers' decisions alone. Although these same principals report that they have much greater influence in curriculum decision making in their schools, the data do not indicate that the principals in Type 4 schools see themselves as key decision makers in curriculum decisions. That is more likely in Type 0 schools. It appears, then, that the reason these principals describe their overall influence in curriculum decisions as much higher than other principals' is not the downward shift from the district. In the next section an alternative explanation is presented.

Teacher-Principal Interaction in Type 4 Schools

On close examination, Type 4 schools are characterized by much greater interaction between the principals and the teachers on matters of curriculum and teaching methods. As described earlier, the increase in teacher influence in high-collaboration schools is described by principals as more shared decision making between the teachers and the principal, except for the single case of decisions on developing special courses or units. Shared decision making means greater interaction. Increased principal interaction with teachers shows up in data gathered on two additional measures in the course of this research: (a) the frequency with which principals evaluated the teaching of reading and (b) the amount of time principals spent stimulating change within the school.

Evaluation of the teaching of reading is more frequent in Type 4 schools (see Table 14). This should be indicative of closer interaction with teachers on instructional matters. Table 15 provides more evidence of the closer relationship between principals and teachers in Type 4 schools. It shows the percentage of principals who responded that, in their judgment, reading teachers had "considerable" or "a great deal" of knowledge of the criteria by which their teaching of reading was evaluated.

TABLE 14

Frequency of Principals' Evaluation of the Teaching of Reading (reported by principals)

School Type	Frequency of evaluation, grades 1 – 3			
	Never	Fairly Often	Frequently	Very Frequently
Type 0 (N=46)	37%	26%	26%	11%
Type 1 (N=39)	23	36	28	13
Type 2 (N=36)	28	44	17	11
Type 3 (N=44)	34	36	16	14
Type 4 (N=21)	9	43	24	24
All Schools (N=186)	29	36	22	13

TABLE 15

Teachers' Knowledge of Evaluation Criteria, by School Type

School Type	Principals Reporting Teacher Knowledge[a]
Type 0 (N=46)	77%
Type 1 (N=39)	76
Type 2 (N=36)	67
Type 3 (N=44)	80
Type 4 (N=21)	100

[a] "Considerable" or "a great deal."

As mentioned, principals were asked to estimate the amount of time they spend in "stimulating change within the school" an activity that implies close work with teachers on instructional matters. The percentages of principals who scored themselves in the highest two categories on a five-point scale are given in Table 16.

TABLE 16

Principals Spending a Substantial Amount of Time Stimulating Change (Self-report)

School Type	Percentage Responding
Type 0 (N=45)	22%
Type 1 (N=39)	41
Type 2 (N=36)	47
Type 3 (N=43)	47
Type 4 (N=21)	62
All Schools (N=184)	41

In Type 4 schools, the principals are generally more involved with teachers in all decision-making processes, including those concerning curriculum and teaching methods. This evidence may mean that it is the greater involvement on the part of the principal which leads to greater influence by the principal in these matters. March and Simon (1958) pointed out that participative management methods are not necessarily used to provide greater influence for subordinates--they may also be useful as a means of gaining greater influence for superiors. That appears to be the case here. Teachers have greater influence in decision making in high-collaboration schools, but they do not thereby undercut the principals. The principals share the decision-making process with teachers to a greater extent than in other schools. Consequently the principals may have greater influence in matters of instruction, an area in which they traditionally have limited influence. Thus the relationship between the increased influence of principals and the downward shift of the locus of decision making from the district office to the local school appears to be indirect. The mediating variables are greater teacher influence through collaboration and greater interaction between the principal and teachers. (It is important to note that interaction on classroom-related problems and decisions is meant, not just greater

interaction in general. As an indicator of more general interaction, principals were asked about the frequency of faculty meetings. There is no difference in frequency of faculty meetings by type of school.)

Table 17 shows that increased principal influence is associated with greater interaction between the principal and the teachers. The index of principal influence is the number of times each principal described himself as "very" or "extremely" influential in the school. There is, in general, a significant positive correlation between the degree to which teachers participate in local school decision making, and the influence of the principals in decision making. This is particularly true for personnel and administrative decisions, which teachers have traditionally influenced far less than curriculum and pupil management decisions. No significant correlation appears between community participation and principal influence or between district office participation and principal influence.

No significant correlations appear between certain characteristics of formal governance structures and principal influence--frequency of faculty meetings, number of standing committees, or number of regular committee meetings--although the results in Table 17 suggest that principal influence is related to interaction between principals and teachers, which in turn is strongly affected by the organizational structure of schools. Table 17 presents correlations of the index of principal influence with participation variables.

Principals who thought they were more highly influential in determining teaching methods and curricula in the school and in raising the level of pupil achievement were significantly more likely to report higher professional interaction within the school. Greater teacher participation in personnel and administrative decisions is associated with greater principal influence in matters of curriculum and pupil achievement.

TABLE 17

Correlates of Principal Influence
(Spearman correlations)

	r
Combined participation scores	
Total decision participation	.12
Total decision participation in school	.18**
Central office participation	
Participation by central administration	.03
District office participation in curriculum	-.02
District office participation in personnel	-.01
District office participation in pupil management	-.01
District office participation in administration	-.10
Principal's participation	
Participation by principal	.18**
Time spent in change efforts by principal	.22**
Frequency of evaluation of reading program	.32***
Frequency of faculty meetings	.03
Teacher participation	
Faculty decision participation, total	.08
Teacher decision participation, total	.19**
Faculty decision participation in curriculum	.12*
Faculty decision participation in personnel	.04
Faculty decision participation in pupil management	-.01
Faculty decision participation in administration	.19**
Teacher decision participation in curriculum	.07
Teacher decision participation in personnel	.19**
Teacher decision participation in pupil management	.04
Teacher decision participation in administration	.21**
Teacher participation, formation of agendas for faculty meetings	.13*
Teacher participation, hiring new teachers	.14*
Community decision participation	.02
Number of standing committees	.01
Number of committees meeting regularly	.03

*p<.05
**p<.01
***p<.001

It may be noted that nowhere in the data is there a significant negative correlation between the influence of principals and either teacher participation or teacher influence. Whenever this comparison is made, principals in schools with high teacher participation and influence see themselves as having influence at least as high as other principals, and often significantly higher. Principals apparently have nothing to lose and everything to gain by greater teacher participation and influence, as they see the situation.

Summary

1. Substantial teacher participation and influence does not undermine the influence of principals. On the contrary, in certain areas of influence, principals describe themselves as much more influential in schools in which teachers are also highly influential.

2. This greater influence of principals in certain areas appears to be related to much greater interaction between principal and teachers on educational matters in schools in which teachers collaborate to a high degree. When teachers work alone, principals also tend to work alone and make decisions alone. In such situations, both the principal and the teachers have less influence on various issues. When teachers work together, principals appear to be drawn more deeply into involvement with teachers on decisions concerning the educational process itself, and by being more deeply involved, find themselves more influential.

3. The influence of district administrators in Type 4 schools is somewhat less than in other schools. The greater influence of principals does not appear to be directly related to that fact, but rather indirectly. Teachers appear to be the direct beneficiaries of the downward shift of decision making from the district to the school. The principal's greater influence stems from his deeper involvement with the teachers.

4. The influence of principals does not appear to be related in an important degree to the formal structure of faculty meetings and committees, or to participation by parties outside the context of the local school, including the district office and community groups.

V. SCHOOL CHARACTERISTICS AND ENVIRONMENTAL FACTORS AFFECTING PARTICIPATION AND INFLUENCE

Are the results described to this point related to variables other than differences in organizational structure? Although the theoretical structure of this study did not include predictions of the relationships of other variables, data were collected on numerous organizational and environmental variables with potential relationships to the major dependent variables; they are examined here.

Three topics are taken up: (a) the relationship of additional independent variables to teacher participation and influence, (b) the relationship of additional independent variables to principal influence, and (c) the relationship between open space architecture and teacher collaboration.

School Characteristics

Size. In this study, both the size of the elementary school in question, and the size of the district of which it is an operational unit were examined.

For many purposes in organizational analysis, size is a crucial variable. Hickson, Pugh, and Pheysey (1969), for example, found that size is more important than technological variables in determining the nature of organizational structure. But the evidence does not suggest that size itself affects participation and influence in decision making. Instead, various studies suggest that organizational size is an antecedent variable. For example, Corwin (1970) shows that standardization increases with size in high schools. It may be argued that size leads to standardization, and that standardization is inimical to the establishment of collaborative structural arrangements. In that case we would expect schools with high intensity and extensity of collaboration to be smaller. That is not the case however. There was no relationship between high extensity and intensity of collaboration and school size.

Intuitively, one might expect small schools (say those with fewer than a dozen teachers) to differ from large schools because of closer interaction of the teachers with the principal and other teachers.

Closer reasoning quickly dispels this intuition. There is no research evidence demonstrating that the rates of interaction are higher in small schools than in larger ones. Even if there were differences, no theoretical basis is known for expecting more frequent interaction alone to be associated with greater influence in decision making. The results presented earlier suggest that substantially increased influence by teachers is associated most strongly with intensive technical, job-related interaction among teachers, and less significantly with formalized interaction of low intensity.

Informal interaction related solely to school size is a different matter. Though the data indicate no important overall relationship between school size and teacher influence, there is a small but significant negative correlation between school size and teacher participation in decision making ($r = -.12$, $p < .05$). Principals in smaller schools are slightly more likely to report higher teacher participation, but not higher teacher influence.

Other school characteristics. Important studies in educational effectiveness have attempted to determine whether the amount of money spent in schools bears a relationship to better educational results. In the present study it was believed possible that there was a relationship between the level of district expenditures and the influence of teachers in decision making. Such a relationship might result from the presence of better educated teachers where salaries are higher; or, higher expenditures might mean more opportunities for decision making, particularly in connection with special programs.

When teacher participation and influence were correlated with financial variables, the following pattern resulted: Teachers' salaries are not correlated significantly with either teacher participation or teacher influence. The only financial variable showing a significant correlation with teacher influence is special district funding ($r = .18$, $p < .01$), a condition which suggests that the increased influence is brought about by greater teacher interaction within the local school on some significant decisions involving a special project or activity.

This supposition is in accord with the general thesis of this study: i.e., that greater influence is related to significant professional interaction. Higher funding per se bears no relationship to professional interaction and thus not to greater influence.

Several financial variables do have a positive relationship with teacher participation, as reported by the principals. The highest correlations are with expenditures on textbooks and supplementary materials ($r = .18$, $p < .01$). In general, principals in schools where more money is spent (excluding salaries) report slightly greater teacher participation in decision making; but this is not translated into teacher influence on outcomes. The pattern that is suggested by these correlations is that principals ask for teacher preferences on the use of resources when resources are greater, but do not accord teachers a greater voice in final decisions on expenditures just on that basis. The greater voice in final decisions comes about only through professional interaction of a more intensive kind.

Of staff characteristics examined, only the presence of an unusually large number of professional specialists other than teachers is associated with both greater participation and greater influence by the staff (participation, $r = .16$, $p < .05$; influence, $r = .14$, $p < .05$). Once again, this suggests that the presence of specialists brings about more intensive professional interaction, which in turn is associated with greater teacher influence. Greater teacher participation also shows up in schools with more adult volunteers.

The frequency with which the teaching of reading is evaluated is positively correlated with teacher participation ($r = .23$, $p < .01$), but not with teacher influence. Time spent by the principal, in attempting to stimulate change, on the other hand, is positively correlated with teacher influence at the .01 level ($r = .17$), in accord with the general argument about professional influence arising from intensive professional interaction.

Environmental Variables

The community. Differing theoretical viewpoints, as well as the examination of differing types of community relations with schools, lead to differing expectations about the relationship between community influence on schools and teacher influence in decision making. In a recent study of institutions of higher education, the pressures exerted by the clientele strongly affected certain kinds of internal organizational decision making (Baldridge, 1971; Curtis, 1972; Riley, 1972). Although elementary schools are different from colleges in many respects, including their relationship to their environment, we might nevertheless expect environmental pressures to be important.

In the present study, principals and superintendents were asked to assess the general level of influence of community groups and parents on school decision making. (This is in addition to questions relating to the participation of parents in specific school decisions.) Data were also assembled on the ethnic and economic characteristics of school neighborhoods from principals and from other sources. Table 18 provides correlations of parent and community participation and influence with teacher participation and influence.

TABLE 18

Correlation of Teacher Participation and Influence with Community Participation and Influence

Parent and Community Participation and Influence	Index of Teacher Participation	Index of Teacher Influence
Influence as estimated by principal	.14*	.02
Influence as estimated by superintendent	.02	-.02
Index of parent and community participation	.30***	.08

*p < .05
***p < .001

Table 18 presents a now-familiar pattern. There are significant positive correlations between the indexes of community influence and participation and teacher participation, but not between community participation and influence and teacher influence. Parent influence on the schools may be associated with more teacher participation in decision making, but this does not mean that teachers influence more decisions. The size of the correlations between teacher and faculty participation and parent participation calls for some comment. It may be that principals who practice a participative style of management with teachers tend to involve parents in decision making more than other principals. Another possibility is that these data reflect increased numbers of local school advisory committees and other forms of community involvement which have come about partly because of requirements accompanying certain types of financial assistance. The presence of these bodies may activate a higher level of teacher participation in school decisions.

Some small differences in teacher influence are related to the ethnic composition of the schools. The greatest differences appear in pupil management decisions and in some of the administrative decisions that are more likely to be made by principals in schools with a high proportion of minority students. Correlations of teacher influence with ethnic data are provided in Table 19. Schools with a low level of teacher collaboration are somewhat more likely to be found in neighborhoods with a high proportion of minority students (see Table 20).

TABLE 19

Correlation of Teacher Influence with Ethnic Variables

Variable	r
Percentage of black students	-.07
Percentage of Spanish-surname students	-.13*
Percentage of nonwhite students	-.07
Percentage of white students	-.07

*p < .05

TABLE 20

Schools with More Than 25% Minority Students, by School Type

School Type	Percentage
Type 0	52%
Type 1	30
Type 2	33
Type 3	50
Type 4	28

The ethnic data raise the issue of the economic level of the community served by the school, and possible relationships between both variables and the location of schools with a high level of teacher collaboration. Schools with a low level of teacher collaboration are more likely to be found in low-income neighborhoods (see Table 21).

TABLE 21

Economic Level of Neighborhood, by School Type

School Type	Schools in low-income neighborhoods (N=62)	Schools in high-income neighborhoods (N=24)	Schools in mixed-income neighborhoods (N=102)
Type 0 (N=48)	46%	6%	48%
Type 1 (N=34)	31	15	54
Type 2 (N=36)	28	11	61
Type 3 (N=44)	27	16	57
Type 4 (N=21)	29	19	52

The low negative correlation of teacher influence with the ethnic makeup of the neighborhood (Table 19) appears to be explained by the slightly larger proportion of schools with a low level of teacher collaboration among schools having more minority students or serving poorer

neighborhoods. It is possible that collaborative work arrangements are easier to develop and maintain with high-achieving students, who are found in greater numbers in high-income neighborhoods with low proportions of minority students.

Teachers' organizations. Increased teacher participation and influence in school decision making might be expected to show a positive relationship with the strength of teachers' associations. In the past these organizations have concentrated on central district policy issues and economic issues rather than on the development of influence in local school decision making. Now some writers ascribe the development of the present strong teachers' organizations to the fact that teachers have long had little influence in local school decisions.

In this study, principals were asked,

> How influential is (are) the teachers' organization(s) within your district (CTA or AFT local chapter, or CEC) upon decisions made within your school, in these areas:
>
> ____a) curricular decisions
>
> ____b) decisions on professional staff assignments
>
> ____c) decisions on the way pupils are assigned or grouped
>
> ____d) school rules and regulations

Five possible responses ranged from not at all influential to extremely influential. In general, principals responded that teachers' organizations had very little influence in these internal school decisions (see Table 22).

Despite this overall low level of influence by teachers' organizations in school-level decisions (as reported by principals), some significant negative correlations appear between the principals' assessment of the influence of teachers' organizations and the index of general teacher influence in the school, particularly in the area of curriculum ($r = -.21$, $p < .01$). Curriculum decisions tend to be more centralized at the district level when teachers' organizations are influential in curriculum. The data do not indicate that a high level of influence

TABLE 22

Influence of Teachers' Organizations in School Decision Making
(percentage of principals' reports)

Type of Decision	Slightly or not at all influential	Moderately, very, or extremely influential
Curriculum	68%	32%
Professional staff assignments	73	27
Pupil grouping	93	7
School rules and regulations	82	18

by the teachers' organizations is an alternative to teacher collaboration as an explanation for high teacher influence on decisions in local schools. The general level of the influence of teachers' organizations shows no relationship to the type of school, using the typology developed for this study.

The Relationship of School and Environmental Variables to the Influence of the Principal

In this section I will briefly examine the relations of organizational and environmental variables other than teacher collaboration to the influence of principals. There are two reasons for these investigations. The first is to discover whether the increased principal influence noted in Type 4 schools (section IV) may be accounted for by organizational or environmental variables other than intensive and extensive teacher collaboration. The second is that it is of inherent interest to principals and other administrators to know whether principals in certain settings systematically perceive themselves to be more or less influential than other principals.

is supported for ideological reasons, but also on the ground of administrative effectiveness. Owens (1970, p.106) summarizes the literature on this subject this way: "Effective participation by teachers in meaningful organizational decisions does 'pay off'." According to Kimbrough (1966), "the effective school administrator urges the use of processes consistent with democratic values."

Textbooks in administration usually pay more attention to the role of teachers and teachers' organizations in policy formation at the district level than at the school level (e.g., Campbell, Cunningham, and McPhee, 1965), as if few important decisions are expected to be made within local schools. Nevertheless, there is an "official" ideology of participation by teachers in local school management, though it is at variance with other long-established norms of administrative behavior. At the National Conference of Professors of Educational Administration, it was noted that "democratic educational leadership is an 'emerging characteristic'. It appears only in spots" (in Nolte, 1966).

Arguments for increased teacher participation and influence in local schools have often been dissociated from changes in the work organization of schools. The two are simply not connected. Some writers have argued for greater teacher participation as a means of achieving greater identification with the organization by teachers, to everyone's benefit. Tannenbaum (1968), for instance, describes the growth of influence in organizations as a two-way flow; in the process of gaining influence, persons are in turn influenced. But his argument does not take up changes in the structure of work. Chesler and Barakat (1967) discuss evidence that teachers who have greater feelings of power and influence are more inclined to share successful practices and engage in innovative behavior, but they too do not discuss differences in the structure of work as an important factor in the picture. Katz and Kahn (1966) specify conditions under which participative decision making is desirable. Most persons would probably agree that these conditions point to participative decision making as desirable for schools. Once again, however, no link between participation, influence, and the structure of work is discussed.

with percentages of district administrative staff indicate that Type 4 schools are somewhat more likely to be located in districts with a high proportion of administrative staff.

TABLE 23

Correlation Indicators of Principal Influence and District Characteristics

Characteristics	r
Size of school district	.04
Number of elementary schools in school district	.04
Tenure of superintendent in position	-.11
Tenure of superintendent in district	-.12
Tenure of superintendent in administrative positions	-.01
Number of district staff personnel per 100 pupils (full time equivalents)	-.11
Percentage of district staff in administrative positions	-.31***
Percentage of district staff in special administrative positions	-.21**
Percentage of district staff in instructional positions	.22**
Time spent by superintendent in educational change efforts	.17**
Frequency of evaluation of principals by district	.09
Specificity of criteria for evaluating principals by district	.16*
Frequency of evaluation of school by district	-.05
Teachers' organization influence at the district level, as reported by the superintendent:	
on curriculum decisions	.16*
on staff assignments	.18**
on decisions concerning pupil grouping	-.05
on teaching conditions	.16*
on salaries	.00

*p < .05
**p < .01
***p < .001

In parallel with the principal's relations with teachers, the amount of effort spent by the superintendent toward bringing about educational change, as described by superintendents, is positively related to the self-described influence of principals. In addition, greater clarity of evaluation by the district, as described by the superintendents, is positively related to the influence of principals.

The appearance of additional positive correlations between the strength of teachers' organizations (this time as described by the superintendent) and the influence of principals is of considerable interest in light of the strong negative correlations between principals' influence and the size of district administration. The data suggest that principals may have more influence when the community and the teachers' organizations are exerting more influence on the district, though further research would be necessary before making any such statement with certainty.

The primary reason for examining these data on principal influence was to discover whether the increased principal influence attributed to greater teacher influence and participation could be explained by other variables. On the whole, there is an absence of significant relationships between principal influence variables and school and environmental variables other than professional interaction variables. Greater influence for principals does not stem from the type of school neighborhood, the amount of money spent in the school, or the size of the staff. Rather, greater principal influence is related to greater professional interaction between the principal and the teaching staff of the school.

The Relationship between Open Space Buildings and Teacher Collaboration

Physical facilities are commonly designed to accomodate a particular pattern of human interaction. School buildings constructed as a block of rooms separated by solid walls, each room large enough for twenty-five or thirty children, are clearly constructed with the expectation that there will be little interaction among teachers while they are teaching.

It is possible to overcome the isolation imposed by physical facilities, however. Teachers can work closely together in spite of walls. At the other extreme, having teaching space constructed so that interaction is easy does not mean that interaction will take place. This does not necessarily reflect badly upon the teachers or the principal involved, since some circumstances may make close teacher collaboration difficult or even undesirable.

Table 24 provides information about the physical facilities housing each of the school types examined in this study.

TABLE 24

Relationship between Open Space Facilities and Type of Collaboration (percentages)

School Type	Schools with no teachers in open space (N=94)	Schools with >0 but <50% teachers in open space (N=74)	Schools with >50% teachers in open space (N=18)
Type 0 (N=47)	40.4% (38)	9.4% (7)	11.1% (2)
Type 1 (N=39)	20.2 (19)	24.3 (18)	11.1 (2)
Type 2 (N=36)	9.6 (9)	32.4 (24)	16.7 (3)
Type 3 (N=43)	26.6 (25)	17.5 (13)	27.8 (5)
Type 4 (N=21)	3.2 (3)	16.2 (12)	33.3 (6)

Few schools that have no open space have intensive teacher collaboration, though many of them have extensive collaboration. Of schools with no open space, the largest number have no collaboration.

A large number of schools in the total sample have some open space, but not enough to accommodate more than half the teaching staff. Many of these are Type 2 schools, in which some teachers collaborate intensively, while others work alone. This is a particularly interesting organizational structure from the point of view of the questions raised in this research. Working in these schools may be a very different experience for two teachers in the same building, one working in traditional isolation, another in intensive collaboration. As we have seen, the teacher influence scores tend to be very low in Type 2 schools.

Notice, however, that of the full set of 21 Type 4 schools, 12 are housed in these partially open space buildings. In other words, given school buildings which have some open space and some conventional classrooms, some schools have chosen to operate with intensive collaboration of all the staff, while others have chosen to divide into two groups. The evidence suggests that for some purposes, at least, the former is the better option.

Given a building designed for full open space teaching, not all teachers and principals choose to collaborate intensively. The last column in Table 24 shows that the full sample contains eighteen schools in which most of the teaching ~~space is in open space~~ areas. Only six have both intensive and extensive teacher collaboration. Two have no collaboration at all. One can almost feel the tensions that must exist in those schools.

On the whole, the organizational structure is closely related to the physical facilities. Intensive collaboration in which the work structure is significantly changed is not often found outside open space facilities. Of the schools with no open space at all, 40 percent have no collaboration at all.

For purposes of this study, physical facilities have been considered an antecedent variable that influences the development of differing forms of professional teacher interaction. Our primary focus has been on the results of that interaction for teacher and principal participation and influence in decision making, not on the effects of physical facilities as such. A more detailed analysis might well reveal that extensive (but not intensive) collaboration in conventional schools (25 schools) differs in some ways from extensive (but not intensive) collaboration in schools with open space (18 schools). That is beyond the scope of this analysis.

Summary

The analysis of a wide range of variables which might have been expected to affect teacher and principal participation and influence importantly has shown that such relationships are slight. The major variables affecting participation and influence are professional interaction variables internal to the school: collaboration in teaching by teachers, and interaction with the teachers by the principal.

VI. POLICY IMPLICATIONS

What are the major implications of the results of this study? These results have implications for teachers, for principals, and for those who are responsible for the hiring and placement of teachers and principals. The implications for children are indirect, but will be mentioned in the course of the discussion.

Needless to say, the results as presented leave many questions unanswered. Nevertheless, the growing body of information about the effects of team teaching deserves to be taken into account now by practicing teachers and administrators.

Implications for Principals and District Administrators

Most people trained in educational administration are no doubt familiar with arguments for participative management. In an earlier period, John Dewey argued for teacher participation in school decision making, both for the sake of more effective management (stemming from more complete use of the abilities and experience of teachers) and for the sake of training children in democratic principles:

> If the general tenor of what I have said about the democratic ideal and method is anywhere near the truth, it must be said that the democratic principle requires that every teacher should have some regular and organic way in which he can, directly or through representatives democratically chosen, participate in the formation of the controlling aims, methods, and materials of the school of which he is a part. (Dewey, 1937)

Dewey concludes that "the absence of democratic methods is the single greatest cause of educational waste." In his view, there can be no adequate justification for excluding teachers from decision making in schools. Such exclusion is damaging to teachers and pupils, and ultimately is a danger to democratic society.

Textbooks in educational administration commonly support participative forms of school decision making. Summaries of organizational and small group research dealing with participative leadership styles are often included in such texts. The concept of teacher participation

is supported for ideological reasons, but also on the ground of administrative effectiveness. Owens (1970, p.106) summarizes the literature on this subject this way: "Effective participation by teachers in meaningful organizational decisions does 'pay off'." According to Kimbrough (1966), "the effective school administrator urges the use of processes consistent with democratic values."

Textbooks in administration usually pay more attention to the role of teachers and teachers' organizations in policy formation at the district level than at the school level (e.g., Campbell, Cunningham, and McPhee, 1965), as if few important decisions are expected to be made within local schools. Nevertheless, there is an "official" ideology of participation by teachers in local school management, though it is at variance with other long-established norms of administrative behavior. At the National Conference of Professors of Educational Administration, it was noted that "democratic educational leadership is an 'emerging characteristic'. It appears only in spots" (in Nolte, 1966).

Arguments for increased teacher participation and influence in local schools have often been dissociated from changes in the work organization of schools. The two are simply not connected. Some writers have argued for greater teacher participation as a means of achieving greater identification with the organization by teachers, to everyone's benefit. Tannenbaum (1968), for instance, describes the growth of influence in organizations as a two-way flow; in the process of gaining influence, persons are in turn influenced. But his argument does not take up changes in the structure of work. Chesler and Barakat (1967) discuss evidence that teachers who have greater feelings of power and influence are more inclined to share successful practices and engage in innovative behavior, but they too do not discuss differences in the structure of work as an important factor in the picture. Katz and Kahn (1966) specify conditions under which participative decision making is desirable. Most persons would probably agree that these conditions point to participative decision making as desirable for schools. Once again, however, no link between participation, influence, and the structure of work is discussed.

Pellegrin, R. J. Some Organizational Characteristics of Multi-unit School. Technical Report No. 8. Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1970.

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Tannenbaum, Arnold S. Control in Organizations. New York: McGraw-Hill, 1968.

Wolcott, Harry F. The Man in the Principal's Office. New York: Holt, Reinhart, and Winston, 1973.

Most important, teachers and administrators who wish to develop greater teacher participation and influence in local school decision making should actively associate that goal with changes in the structure of work. While the two may be separable in both theory and practice for some purposes, if the work structure for most of the teachers is changed to some form of intensive collaboration, greater teacher participation and influence in school-wide decision making will probably follow. It is doubtful that a high level of teacher influence and participation in shaping the local school can be accomplished without significant alterations in the structure of work.

Not all principals are happy with the idea of greater teacher influence in school decision making. It is not easy for anyone to change ingrained practices. Many principals are quite accustomed to working alone, just as are many teachers. The hierarchical relationship between the principal and teachers has often been described as a patriarchical relationship, parallel to the relationship of teacher and pupil (Abbott, 1965). Undoubtedly, the relationship of many principals and teachers still fits such a description, although better management training for principals and growing professionalism and militancy on the part of teachers are likely to lead to change.

Even principals who are quite willing to change their management techniques and who believe that teacher influence and participation should grow may at the same time have serious qualms about the effects of all this on themselves. Hoban (1973) seriously proposes that the time has come to eliminate the job of principal altogether. For this reason, the results of this study dealing with the self-perceived influence of principals are highly important. There is no evidence that the principal becomes less influential in schools where teachers have become more influential.

It is possible that principals in the high-collaboration schools in our sample are the most effective principals in our sample, assigned to those schools deliberately because district administrators knew that those schools required strong principals. That cannot be disproven on the basis of the data.

It is particularly noteworthy that principals in high-collaboration schools expressed a higher degree of influence on decisions about teaching materials and teaching methods. The isolation of most teachers in non-collaborative working arrangements has meant that most principals have had little voice in matters that are at the heart of the educational process. In this study 88 percent of the principals questioned rated themselves as "very" or "extremely" influential in carrying out district policies; only 23 percent rated themselves as "very" or "extremely" influential in determining the methods used by teachers in their daily work.

The fact that the picture is different in high-collaboration schools implies that principals in high-collaboration schools find it easier to be educational leaders rather than bureaucratic officers who are influential in matters external to the teaching and learning process. To put it another way, change in the work structure of teachers is associated with change in the work structure of principals. Principals in schools characterized by a high level of collaboration appear to be drawn much more deeply into professional interaction, as evaluators, as change agents, and as decision makers.

Another result which shows up consistently throughout the data, however, is that there is no such relationship in schools where the work structure is changed for a small proportion of the staff. The data lead one to suspect management problems in schools where the work structure is changed to intensive collaboration for only a minority of the staff.

Implications for Teachers and the Teaching Profession

Previous studies have indicated some outcomes of teaching in high-collaboration schools that are of considerable importance to teachers. In the 1971 Meyer and Cohen study, greater job satisfaction and a greater sense of autonomy or control over one's work were related to teaching in open space schools. (These open space schools were also characterized by fully developed teaching teams.) Teachers in these schools also believed themselves to have greater influence over school policies and decisions than teachers in conventional schools. This report confirms increased teacher influence in school-level decision making in high-collaboration schools, this time drawing evidence from principals in a wide range of school situations, and examining a wide range of decisions.

There would seem to be sound reasons, having to do with many aspects of the professional life of teachers, for teachers to promote collaborative work arrangements. Many arguments about greater school effectiveness through participative management also provide ammunition for upgrading the profession of teaching through participative management. Since we have shown that expanded teacher participation and influence are associated with changed working relationships, a case can be made for connecting the further development of teaching as a profession with changes toward greater day-to-day teacher collaboration.

Organized teachers have not expressed much interest in promoting greater collaboration on the job. The focal point of their efforts has been at the district level, with emphasis on economic issues and on district-wide policies concerning personnel, class size, and the like. Indeed, objections to team teaching are rather frequent. One major objection is that it demands extra time from the teachers involved. That is a serious and complex problem. Participative processes in general take more time than hierarchical decision making (Katz and Kahn, 1966), and school decision making is no exception. The problem, however, is not insoluble.

With greater evidence becoming available on the growth of teacher influence through changes in the internal structure of schools, some teachers may find such changes appealing as an alternative to negotiating at the district level, or as a route to achieving a different but equally important kind of influence for teachers. Through professional organizations, teachers have altered the political structure of school life but not its work structure. Improvements in the personal, professional, noneconomic aspects of teaching may come about more readily through changes in the work structure than through any other way now available.

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Appendix A

SAMPLING PROCEDURE

The sampling procedure produced a stratified systematic sample of districts in a six county area, using district size as the stratification variable. Within each stratum, a systematic sample of schools was selected.

Large districts were sampled most heavily and small districts most lightly. However, the percentage of schools sampled in the large districts was smaller than in the small districts, to avoid having most of the sample of schools fall in the large and medium sized districts and few in the small districts.

District size was measured by the total number of eligible schools in a district. A school was considered eligible if it had two or more grades in the K-6 range. This meant, for example, that a 5-8 school was included, but a 6-8 was not. Using this criterion there were few ineligible schools. All districts were divided into four strata according to these criteria:

Large	34 or more eligible schools
Medium Large	15 to 33 eligible schools
Medium	7 to 14 eligible schools
Small	1 to 6 eligible schools

The population of districts from which the sample was drawn consists of all the districts in six Bay Area counties: San Mateo, Santa Clara, Contra Costa, Marin, Alameda, and San Francisco. There were 101 districts and 1,047 eligible schools, broken down as follows:

Stratum	Number of Districts	Number of Schools
Large	8	390
Medium Large	12	211
Medium	33	305
Small	48	130
Total	101	1047

Our target sample of 200 schools came to about 19 percent of all the schools in the population.

The districts in each stratum were sampled in differing percentages. One hundred percent of the eight "large" districts were selected; nine (approximately 19 percent) of the "small" districts were selected. Schools were sampled in differing percentages from among the strata of districts, as shown below:

Stratum	Districts in Sample	Percentage of Schools Sampled From Each District in Sample
Large	100 % (8)	19%
Medium Large	50 (6)	38
Medium	33 1/3 (11)	57
Small	19 (9)	100

Note that in each stratum of districts 19 percent of the schools were selected. This percentage figure was largely a matter of convenience, since it came close to producing the desired sample size of 200. The actual size of the sample was 188 schools.

Districts were selected within each stratum systematically: if 50 percent of the districts were to be selected, every second district in the stratum was selected. In this way the full range in size variation within the stratum was maintained. Similarly schools within districts were chosen on a systematic sampling basis.

Appendix B

RESEARCH INSTRUMENTS

Selected Questions from the Principal Interview

PART A: STAFFING PATTERNS

INTERVIEWER: IF IN READING THROUGH THE QUESTIONNAIRE YOU FOUND ANY MISSING OR UNCLEAR RESPONSES, GO OVER THEM WITH THE PRINCIPAL AT THIS POINT.

1. I would now like to ask you about any teaming or collaborative relationships your teachers use in instruction. We recognize that there are a great variety of working relationships possible among teachers; therefore, rather than asking you for the number of "teams" you may have, I would like to know whether you have any small teacher groups who meet one or more of the criteria on this piece of paper.

INTERVIEWER: HAND PRINCIPAL SCALE 1-(FIVE TYPES OF COLLABORATION)

____Yes, I do ____No, I don't

IF NO: SKIP TO QUESTION 4 (p.3)

IF YES: PROCEED AS FOLLOWS:

Please tell me how many such groups you have, how many teachers are involved in each group, and which of the criteria on this list apply to each group.

List of Names of Collaborative Groups (Specify Subject Areas if Specialized)	No. of teachers in each group	Applicable Criteria (Type of Collaboration)				
		A	B	C	D	E
		A	B	C	D	E
		A	B	C	D	E

*The complete instruments used in this research were also used for other research purposes, and parts of them are not relevant to this study. This appendix includes the interview and questionnaire items from which data reported in the text or in other appendices are drawn.

Principal Interview

Scale 1

Response Categories to be
Used with Principal Interview Question

Types of Collaboration

A. Teachers divide children into groups according to either subject matter or ability and rotate students among groups.

B. Teacher group meets at least every other week for one or more of the following purposes: planning of instruction, evaluation of student progress, and/or coordination of student discipline.

C. Teacher group members work directly with each other in instruction; that is, teachers jointly teach the same lesson to the same group of pupils.

D. Teacher group is collectively responsible for its students, who are <u>really</u> assigned to the group as a whole rather than to any individual member.

E. Teacher group designates an official leader to coordinate the group's program with other teachers and with your office.

Principal Interview

7. Does your school have any "open space pods" or other instructional spaces where two or more teachers regularly work at the same time?

____Yes ____No

IF NO: SKIP TO QUESTION 8

IF YES: ASK

a) How many such spaces? ____ With altogether how many teachers? ____

b) In these pods or open space classrooms do the teachers generally teach in such a way that they are visible to each other while they work?

____in general, this is true.

____this is true for some, not for all.

____in general, this is not true.

c) Has the amount of such space changed significantly during the past two years?

____Yes, it has increased.

____Yes, it has decreased.

____No, it has remained about the same.

Principal Interview

PART B: SCHOOL DECISION MAKING

As you know, schools differ in the matter of who is consulted or becomes involved when various decisions are made. In this section we ask about some specific decisions which are commonly made in the course of operating a school. We are interested in finding out which individuals or groups are consulted or become actively involved when these decisions are made in your school.

Please note that we are asking only about active involvement or consultation, not about the amount of influence these individuals or groups may have. For example, teachers may be actively involved in deciding whether to make changes in the school time schedule, but they may not be very influential in the matter.

Please be careful not to respond in terms of what should be the case by anyone's standards. We would like to know what the usual procedure actually is in practice in your school.

* * * *

10. Please score each person or group for each decision according to the following scale:

INTERVIEWER: HAND RESPONDENT THE SCALE FOR QUESTION 10.

1-would never (or almost never) be consulted or become actively involved.

2-would seldom be consulted or become actively involved.

3-would occasionally be consulted or become actively involved.

4-would usually be consulted or become actively involved.

5-would always (or almost always) be consulted or become actively involved.

Principal Interview Active Participation or Involvement	Administrators or staff at the district office.	Principal	School faculty as a group	Teachers - individually or as a teaching team	Parents or community groups	No decision on this has ever occurred in this school.
a. Decision to hire a new teacher (the specific decision resulting in a contract offer).						
b. Decision to adopt a new major reading curriculum to be used within this school.						
c. Decisions assigning pupils to classes and teachers for the next school year.						
d. Decision to make changes in the school schedule affecting the whole school.						
e. Decision to adopt individualized instruction or some other particular teaching method, in more than one class.						
f. A general policy decision on whether to use paid teacher aides in this school, given available funds.						
g. Deciding on the agenda for faculty meetings.						
h. A decision to alter the professional assignments of staff members to permit greater specialization.						
i. A decision on the best course of action for handling a serious disciplinary problem.						
j. A decision whether to use ability grouping, or some other form of grouping of pupils, as a general policy for this school.						
k. A decision to develop a special course or unit not standard in the curriculum (such as ecology) within this school.						
l. Decisions establishing school policies on the use of the playground, buildings, and equipment (for the pupils and staff of this school).						

Principal Interview

In the previous question we asked about the degree to which various persons and groups participate in certain specific decisions. In this section we ask which persons or groups have the predominant influence on the outcome of these decisions.

Please keep in mind that no judgments are being made on what the "right" way is. We would like to know how things work in practice.

* * * *

11. On each of the decisions listed, please choose the statement from the list provided which most accurately describes how the matter is decided.

INTERVIEWER: HAND RESPONDENT THE SCALE FOR QUESTION 11

1-this decision is basically made at the district level, with consultation with the principal and/or teachers.

2-this decision is basically made by the principal, with consultation with teachers and/or district administrators.

3-in practice, this decision is basically made by teachers, although the principal and perhaps district staff persons, are influential and involved.

4-this decision is made at the school level, and in practice is shared quite equally between the principal and teachers.

5-no decision on this matter has been made in this school; question cannot be answered.

Principal Interview

	Choose the most appropriate statement from the scale for question 11; indicate choice in this column.	If answers "3" or "4" are chosen, ask the following: "By 'teachers' do you mean: a-the teacher or teachers affected by the decision, b-a committee, or c-the teaching staff as a group?"
a. Decision to hire a new teacher (the specific decision resulting in a contract offer).		
b. Decision to adopt a new major reading curriculum to be used within this school.		
c. Decisions assigning pupils to classes and teachers for the next school year.		
d. Decision to make changes in the school schedule affecting the whole school.		
e. Decision to adopt individualized instruction or some other particular teaching method, in more than one class.		
f. A general policy decision on whether to use paid teacher aides in this school, given available funds.		
g. Deciding on the agenda for faculty meetings.		
h. A decision to alter the professional assignments of staff members to permit greater specialization.		
i. A decision on the best course of action for handling a serious disciplinary problem.		
j. A decision whether to use ability grouping, or some other form of grouping of pupils, as a general policy for this school.		
k. A decision to develop a special course or unit not standard in the curriculum (such as ecology) within this school.		
l. Decisions establishing school policies on the use of the playground, buildings, and equipment (for the pupils and staff of this school).		

Principal Interview

Principal's Influence

There are many pressures on school principals, as we all know. Public schools do not select the pupils who will attend. The concerns and interests of parents, teachers and district administrators do not always coincide. Some things about any school cannot easily be changed.

We assume that your school has its share of difficulties and problems. Given the specific situation you are in, we would like your judgment about the amount of influence you as the principal can exert in a number of areas of concern which are common to schools.

* * * *

12. Compared to all the other factors influencing the situation, how influential are you, as principal, in the following matters?

	Extremely influential	Very influential	Moderately influential	Slightly influential	Not at all influential
a. Carrying out the policies of the Board or District at the local school level.					
b. Determining specific methods used by teachers in their daily classroom work.					
c. Maintaining or achieving good morale and behavior on the part of pupils in the school.					
d. Helping weaker teachers improve the quality of their work with pupils.					
e. Maintaining or achieving good attitudes toward the school on the part of parents.					
f. Maintaining or achieving good teacher morale.					
g. Developing and/or adopting improved curricula or programs in the school.					
h. Raising the level of achievement of pupils who are weak in reading and arithmetic.					

Principal Interview

13. Suppose you and your staff desired to adopt a new reading curriculum for your school. We would like to know how explicit the district policies and procedures are which you would follow in seeking approval for this program.

____a) This decision would be governed by explicit policy guidelines and established procedures.

____b) This decision would be governed by general policy guidelines only.

____c) This decision would be governed by informal or ad hoc arrangements.

14. Suppose you wished to reorganize your staff for team teaching. How explicit are the district policies and procedures applying to the situation?

____a) This decision would be governed by explicit policy guidelines and established procedures.

____b) This decision would be governed by general policy guidelines only.

____c) This decision would be governed by informal or ad hoc arrangements.

15. Suppose you and your staff wished to develop a different method of grouping and assigning pupils for instructional purposes. How explicit are the district policies and procedures applying to the situation?

____a) This decision would be governed by explicit policy guidelines and established procedures.

____b) This decision would be governed by general policy guidelines only.

____c) This decision would be governed by informal or ad hoc arrangements.

Principal Interview

16. We would like to know how you see your own role regarding educational change within your school. Please rate yourself on a scale from one to five, where five indicates that you are able to spend a great deal of time stimulating change within the school, and one indicates that you are able to spend almost no time in such activities.

1 - almost no time

2 -

3 -

4 -

5 - a great deal of time

17. Which is the best estimate of the economic level of families whose children are served by your school:

Low-income | Low-middle income | High-middle income | High-income | Mixed

IF MIXED, SAY: Please indicate the two most predominant income categories:

18. With regard to the adult community within which this school is located, which of these alternatives best describes the community climate regarding education:

Choose one:

____Active

____Inactive

____Mixed

Choose one:

____Innovative

____Traditional

____Mixed

Principal Interview

19. In general how much influence do parents and community groups have on your school decisions and planning?

Parents and/or community groups are:

____a) Extremely influential

____b) Very influential

____c) Moderately influential

____d) Slightly influential

____e) Not at all influential

20. How influential is the teachers' organization(s) within your district (CTA or AFT local chapter, or CEC) upon decisions made within your school, in these areas:

____a) curricular decisions

____b) decisions on professional staff assignments

____c) decisions on the way pupils are assigned or grouped.

____d) school rules and regulations

SCALE

1-not at all influential
2-slightly influential
3-moderately influential
4-very influential
5-extremely influential

Principal Interview

PART D: EVALUATION

Now we want to ask you some questions about how you evaluate teachers in the reading program in grades 1-3. For example, you may compliment teachers on their good work periodically or criticize them for mistakes; you may occasionally give them formal written evaluations; you may simply indicate your judgments of their performance with a smile or a frown; or you may look at how they are doing and say nothing, and yet they may know whether or not you are satisfied.

In general, when you indicate in any way, directly or indirectly, how well or poorly you think a teacher is doing, you are giving an evaluation. Please remember that what we mean by evaluation includes much more than formal, written evaluations.

53. In general, how frequently do you evaluate how well or how poorly teachers are doing on the task of teaching reading in grades 1-3?

____a) Very frequently
____b) Frequently
____c) Fairly often
____d) Occasionally
____e) Seldom
____f) Almost never
____g) Never

Principal Interview

55. In your opinion, to what extent do teachers have knowledge of the criteria which you use to determine how well or poorly they are doing on the task of teaching reading in grades 1-3?

____a) Teachers have a great deal of knowledge

____b) Teachers have considerable knowledge

____c) Teachers have some knowledge

____d) Teachers have little knowledge

____e) Teachers have no knowledge

Selected Questions from the Principal Questionnaire

In this section we ask for a summary of all personnel who work in your school, with the exception of custodians and nurses.

In order to get an accurate summary of your staff, we ask about the number of people, and also about the number of "full-time equivalents." A half-time counselor should be reported as one person, and ½ full-time equivalents. Three half-time secretaries would be reported as three persons, but 1½ full-time equivalents. If necessary in the case of district personnel whose time in your school may fluctuate, estimate the proportion of time the person spends in your school.

1. Certificated personnel

This chart is intended as a summary of all paid certificated personnel who work in your school, except administrators. Every paid certificated person who works in your school either full-time or any fraction of time should be included. Some persons may be reported in more than one category, but no person should be reported as more than one full-time equivalent. In cases of doubt, choose the best alternative. If no alternative is appropriate, please use the category labeled "other" with an explanatory note.

	School Staff		District Staff	
	No. of persons	Full-time equivalents	No. of persons	Full-time equivalents
a) Regular classroom teachers. .				
b) Teachers with special classes (e.g., teachers working with mentally gifted classes, educationally handicapped classes, etc.).				
c) Teachers who do not have a regular class (e.g., remedial reading teachers, special teachers in art, music, physical educ, etc.). . . .				
d) Psychologists				
e) Counselors.				
f) Speech therapists				
g) Librarians.				
h) Curriculum specialists. . . .				
i) Others (please specify) . . .				
TOTALS				

Principal Questionnaire

2. Administrators in this school:

Title	No. of persons*	Full-time equivalents
a) Principal		
b) Vice-principal		
c) Other administrative personnel (please specify)		

*NOTE: In the event that a person carries an administrative title but also carries a full-time teaching assignment, please note that above in the column for full-time equivalents.

3. How many clerical personnel are in this school?

Number of persons_____; Full-time equivalents_____.

4. How many paid teacher aides does your school employ?

Number of persons_____; Full-time equivalents_____.

5. How many adult volunteers (non-paid helpers) work in your school on a typical day? (If necessary, please estimate the average at any one time during the year.):

a) Adult volunteers working with teachers_____

b) Adult volunteers working in other capacities_____

Please estimate the number of hours spent in the school by the average adult volunteer per day:_____.

6. How many of the teachers in your school are tenured?_____

7. How many of your teachers have worked at this school:

____a) 1-3 years

____b) 4-8 years

____c) 9-12 years

____d) over 12 years

Principal Questionnaire

8. How long have you been principal of this school?_____

   How long have you been an educational administrator?_____

   How long have you worked in this school district?_____

9. All schools have faculty meetings, but faculty meetings are organized differently in different schools. Which of the following is the most accurate description of faculty meetings in your school?

   ____a) Faculty meetings are primarily for communicating information and soliciting reactions from the staff to aid the administrative process.

   ____b) Faculty meetings are primarily occasions for making decisions and setting policies for the conduct of the school.

10. How often are faculty meetings held?_____times per_____.

11. Does your school have any standing committees for dealing with school level matters such as curriculum, teaching methods, special programs, student disciplining, etc.? If so, please list these committees and provide the information requested.

NAME OF COMMITTEE	How often it meets	No. of participants	Types of participants (parents, teachers, etc.)	Description of duties (if not clear from title)

Principal Questionnaire

14. Has your school applied for any special district funds for instructional purposes during the last two years?

Yes____ No____

IF YES: How many times have you applied?_____

Please list the application for which you received such funds, and the approximate amount the school received.

Purpose of Application	Amount Received

15. Does your school receive special federal or state funds, such as Miller-Unruh or Title III funds, for educational programs?

Yes____ No____

IF YES: Please explain the nature of the program or programs briefly, and give the approximate amount of the special funds.

Nature of the Program	Source (State or Federal)	Approximate Amount of Special Funds

Selected Questions from the Superintendent Interview

6. In general, how frequently do you evaluate how well or poorly principals are performing as school administrators.

____a) More frequently than once a year

____b) Once a year

____c) Once every two years

____d) Once every three to five years

____e) Other (Please specify)

7. As you know, in order to evaluate any member of your staff, it is necessary to develop criteria or standards of evaluation and also to gather information on the performance of the staff member being evaluated.

a. What criteria or standards have been set to determine how well or poorly principals are performing as school administrators?

b. What types of information are collected to determine how well or poorly principals are performing as school administrators?

Superintendent Interview

24. How influential are the teachers' organizations within your district (CTA or AFT local chapter, or CEC) in these areas:

INTERVIEWER: HAND OUT SCALE 1

	Not at all Influential	Slightly Influential	Moderately Influential	Very Influential	Extremely Influential
a. Salaries and fringe benefits					
b. Teaching conditions, such as class size and extra duties					
c. Curriculum decisions					
d. Decisions on professional staff assignments					
e. Decisions on the way pupils are assigned or grouped					

28. In general, how much influence do parents and community groups have on decisions and planning in your district? Parents and/or community groups are:

____a) Extremely influential

____b) Very influential

____c) Moderately influential

____d) Slightly influential

____e) Not at all influential

Superintendent Interview

Finally, I would like to ask you 3 questions concerning the way in which you see your own role as superintendent.

29. First, we would like to know how you see your own role regarding educational change within your district. Please rate yourself on a scale from one to five, where five indicates that you are able to spend a great deal of time stimulating change within the district, and one indicates that you are able to spend almost no time in such activities.

____1-Almost no time

____2

____3

____4

____5-A great deal of time

Appendix C

COMPARATIVE DATA FROM TEACHERS

A separate research group within the Environment for Teaching Program of SCRDT drew a subsample of sixteen schools in order to conduct an intensive study involving data from teachers and students. As a result, the responses of principals to some interview questions can be compared with the responses of teachers to similar questions as a means of validating the responses of principals. The teacher data are from questionnaires. Since the research purposes were different the questions were not exactly the same, nor were the procedures used in data reduction exactly the same. Therefore, the comparisons are only approximations.

Teachers in the subsample indicated whether or not they worked in collaboration with other teachers. The percentage of teachers in each school who said they taught jointly and/or had joint responsibility for students was then obtained. These results are compared with the information obtained from principals in the tabulation below. School types were assigned to each school on the basis of information obtained from principals. The tabulation shows the percentage of teachers in each school of each type who had some kind of joint responsibility for students.

Type 0 (3 schools)	Type 1 (3 schools)	Type 2 (4 schools)	Type 3 (2 schools)	Type 4 (4 schools)
17.7%	36.8%	62.5%	44.4%	90.9%
0.0	12.5	50.0	10.0	60.0
0.0	0.0	25.0		53.8
		10.0		31.3