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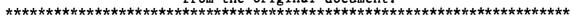   Students; Secondary School Teachers; *Self Efficacy;
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ABSTRACT
         This study examined the relationship of teacher
decisional participation and school climate to teachers' sense of
efficacy and their job satisfaction. Data came from the National
Educat on Longitudinal Study of 1988 (NELS-88) project, involving
1,035 schools with eighth grade students, and from the 1990 follow up
of 1,296 schools. The final data set involved 9,987 teachers and
27,994 ratings of students. Results indicate that school climate has
a noteworthy association with job satisfaction; however, the
relationship between climate and sense of efficacy is limited.
Climate was found to be composed of three elements: principal
leadership, faculty collegiality, and student discipline. Each of
these climate components had a relatively strong association with
teachers' feelings of job satisfaction. Participation in decision
making did not explain as much of the variance in job satisfaction as
the climate variables, and accounted for very little of the variance
in teachers' sense of efficacy. Results tentatively suggest that
satisfaction mediates the relationship between perceptions of school
climate and a sense of efficacy. (Contains 35 references.) (JDD)

Predicting Teachers' Sense of Efficacy and Job Satisfaction using School Climate and Participatory Decision Making

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Teachers' participation in school-level decision making has gained the interest of researchers and policymakers alike because of the central position it holds in discussions of school restructuring (see Bacharach, Bamberger, Conley & Bauer, 1990; Taylor & Bogotch, 1992). Similarly, research interest in school effectiveness during the seventies and early eighties brought school climate to the fore as an important attribute of successful schools (Eubanks & Levine, 1983). Currently, the restructuring literature proposes that a school climate supportive of instructional innovation, combined with participatory decision making, will lead to a greater sense of professional efficacy among teachers and an improvement in teachers' feelings of satisfaction. Although these variables have been the subject of much thoughtful speculation and some research, a strong relationship among them is still more a matter of speculation than empirical documentation. The present study considers the relationship of teacher decisional participation and school climate to teachers' sense of efficacy and their job satisfaction.

Perspective

Participation in decision making

The literature does not offer a single, widely agreed upon meaning for decisional participation. The construct is complex and, therefore, difficult to define, leaving researchers uncertain about the impact on participating individuals or the institutions in which they work (Greenberg, 1975). Bacharach, Bamberger, Conley, and Bauer (1990) observe that our limited understanding of participation is particularly problematic in light of the current reform movement which

places emphasis on bringing teachers into the decisional arena.

Although there is not consensus concerning the meaning of participation, definitions are offered. From an education perspective, Conway (1984) theorizes that participation is the intersection of two discrete concepts; participation, or a shared action, and decision making, or the process of determining a choice. In one of the more comprehensive definitions available, Lowin (1968), an organizational researcher, describes participation as "a mode of _organizational_ operations in which decisions as to activities are arrived at by the very persons who are to execute those decisions" (p. 69).

Participation in decision making is often suggested as a humanistic approach to management and as a vehicle for increasing employee job satisfaction and productivity. While the research has not always pointed to consistent findings regarding participation, numerous studies indicate that decisional participation is positively linked to job satisfaction in both school (Alutto & Belasco, 1972; Bacharach et al., 1990; Conway, 1984) and industrial settings (Locke : Schweiger, 1979).

With regard to schools, the restructuring literature suggests that decisional participation leads not only to increased job satisfaction, but also greater feelings of efficacy for teachers. In her study of school effectiveness, Little (1982) notes that "shared participation in the business of instructional improvement... clearly distinguish[es] the more successful from the less successful schools" (p. 331). In another study, McCormack-Larkin (1985) reports that

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students in low achieving schools showed great improvement in reading and math, and that teachers' sense of efficacy increased after they joined with principals in collaborative decision making.

Such results are not isolated, but as noted above, the research in both education and non-education setting does not always produce positive results regarding the effects of participation. Reasons for the mixed findings deserve consideration.

Causes of equivocal research findings. While many studies support the effectiveness of decisional participation, some studies fail to show an effect. Among several possible explanations offered in the literature, three are pertinent to the discussion here.

One such explanation comes from researchers (Locke & Schweiger, 1979; Lowin, 1968) who argue that decisional participation forms a continuum, ranging from exclusion to full participation. Because the extent to which employees are involved in decision making may fall at any point on the continuum, studies of decisional participation uncover varying results (Alutto & Belasco, 1972).

A second explanation for the mixed results may lie in the design of the studies themselves. Lowin (1968) notes that in order for participation to be accepted, "substantial attitudinal shifts" must occur on the part of both employees and administrators. Satisfaction with work and increased productivity may not be evident as people adjust to participatory decision making. Experimental and quasi-experimental studies are not designed to accommodate these shifts in attitude. Because observational studies investigate participation programs already in place, changes in beliefs about participation are

more likely to have occurred by the time of data collection, leading to different results than are found with experimental studies.

Finally, Bartunek and Keys (1979) cite decision importance as a mitigating factor in the effectiveness of participation. If employees are restricted to making decisions about unimportant issues, effectiveness is unlikely to result. Consistent with this assertion, Duke, Showers, and Imber (1980) report that teachers were unenthusiastic about decisional participation and felt that "shared decision making was...a formality or an attempt to create the illusion of teacher influence" (p. 104).

Despite these problem areas, the preponderance of research provides support for the involvement of teachers in decision making. Effective participation, however, must be supported by school administrators and the environment in the school. School environment, or climate, is an important variable in communicating to teachers the value of their participation.

School climate

Although research on decisional participation provides some evidence of a positive association with job satisfaction and efficacy, the research is less certain regarding school climate. Perhaps this is because, as Hoy, Tarter, and Bliss (1990) and Pallas (1988) note, climate is an ambiguous, difficult to study variable. Indeed, Anderson (1982) asserts that some researchers see climate as sufficiently nebulous to be beyond the scope of school change efforts and thus, not a fruitful area for research.

The body of effective schools research, however, provides reason

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for continued exploration of climate as a predictor of school outcomes (Eubanks & Levine, 1983). Not only is school climate related to achievement outcomes for students in this research, but in one of the most notable effective schools studies, the Rutter team (1979) reports that schools with a positive climate are also characterized by teachers' participation in decision making. Purkey and Smith (1983) echo this finding in their extensive review of the effective schools research.

Anderson (1982) defines school climate as including "the total environmental quality within a given school building" (p. 369). Because there is little consensus concerning the elements that shape school climate, researchers investigate a variety of attributes including the physical plant (Anderson, 1982), rules governing operating procedures (Anderson, 1982), teacher commitment (Hoy et al., 1990), student characteristics such as socioeconomic background, ability, and motivation (Pallas, 1988), principal leadership (Hoy et al., 1990; Purkey & Smith, 1983), teacher control (Pallas, 1988; Purkey & Smith, 1983), teacher morale (Pallas, 1988), and academic emphasis (Hoy & Woolfolk, 1993; Pallas, 1988; Purkey & Smith, 1983).

Hoy et al. (1990) adopt the concept proposed by Halpin (1966) that climate forms a continuum, ranging from open to closed. Schools with an open climate operate with few rules or regulations, and benefit from "reality-centered leadership [from] the principal [and] a committed faculty" (Hoy et al, 1990, p. 261). Conversely, schools having a closed climate are hampered with burdensome paperwork, restrictive rules and regulations, and close supervision (Hoy et al.,

1990).

Surprisingly few studies have explored the relationship between
school climate and teachers' sense of efficacy (Hoy & Woolfolk, 1993)
or job satisfaction. Despite claims by some researchers that climate
cannot be manipulated, others (Coladarci & Donaldson, 1991) have
worked with schools successfully in altering the school environment.
Further study of climate is in order, particularly as it relates to
teacher efficacy and job satisfaction.

Teachers' sense of efficacy

Widely acknowledged in the literature on teacher efficacy is the
Bandura's (1986) proposal that efficacy includes two aspects. Factor
analytic work by Gibson and Dembo (1984) indicates that one dimension
involves a general sense that in particular settings, certain
behaviors will lead to certain outcomes. In schools, this might
translate into a belief that use of certain teaching techniques, for
example rapid-fire questioning, will result in certain learning
outcomes, for example, remembering facts in social studies. The
second dimension relates specifically to an individual's beliefs in
her/his own ability to bring about desired results. For teachers this
involves belief in their own effectiveness in using methods
competently to foster student learning. This second belief is
sometimes referred to as personal teaching efficacy (Poole & Okeafor,
1989).

Ashton (1985) defines sense of efficacy as teachers' "belief in
their ability to have a positive effect on student learning" (p. 142).
Gibson and Dembo (1984) note that efficacy is "a belief that teachers

can help even the most difficult or unmotivated students" (p. 569).
While these definitions contain common elements, Smylie (1990) notes
that the literature is inconsistent regarding the meaning of efficacy.

According to Smylie (1990), definitions vary to include a belief
in one's capacity to perform, a sense of responsibility for student
learning, and feelings of certainty about effective practice. Smylie
warns that while researchers typically assume that feelings of
efficacy apply "equally to teaching different students in different
instructional contexts employing different instructional strategies"
(p. 57), evidence does not support the assumption. Gibson and Dembo
(1984) echo this warning, noting that "teacher efficacy is likely to
be situation specific and may not generalize from one setting to
another" (p. 579).

It is not uncommon for studies to find that feelings of efficacy
for teachers are associated with collegial interactions (Little, 1982·
Poole & Okeafor, 1989), and with the opportunity to participate in
decision making (McCormack-Larkin, 1985). Hoy and Woolfolk (1993)
propose that teachers' sense of efficacy is also influenced by school
climate. In particular, these two researchers find that both
principal influence, described as the ability to obtain resources from
superiors while buffering the school from the administrative
hierarchy, and academic press are positively, but weakly, associated
with teachers' sense of efficacy. Importantly, these researchers also
note that the relationship between sense of efficacy and climate may
be reciprocal, with perceptions of one affecting perceptions of the
other.

Several studies find a positive relationship between teachers' sense of efficacy and important school outcomes, such as student achievement gains and successful school change efforts (Guskey, 1988). Gibson and Dembo (1984) note that in classrooms, strong feelings of efficacy by teachers are associated with several useful behaviors such as greater persistence when initial instructional efforts are unsuccessful, greater academic focus, broader coverage of the curriculum, more productive feedback to students, and more frequent use of large group instruction.

Despite numerous studies associating efficacy with valued outcomes, few research studies examine variables that augment or diminish teachers' efficacy beliefs (Hoy & Woolfolk, 1993). Understanding the relationship of teacher efficacy to other school attributes is important in the current atmosphere of reform, particularly in light of studies that show little change has resulted from restructuring efforts (Popkewitz & Lind, 1989; Prestine & Bowen, 1993; Taylor & Bogotch, 1992).

Job satisfaction

Job satisfaction, the second variable predicted in this study, has been defined as the willingness of an employee to remain with the organization (Belasco & Alutto, 1972), and as feelings an individual has toward work (Locke, 1983). Often job satisfaction is associated with extrinsic and intrinsic rewards. Extrinsic satisfaction come from rewards dispensed by the organization such as salary and benefits, promotion, status, a safe environment, and job security (Lawler & Porter, 1967).

Intrinsic sources of satisfaction reside within the individual and are connected with performance (Lawler & Porter, 1967). Features of the work itself can lead to feelings of intrinsic satisfaction and include the opportunity to contribute to the social welfare, involvement in challenging work with a variety of tasks, and autonomy and discretion in pursuing job tasks (Trist, 1977, in Koch, 1982).

Teachers are often cut off from sources of extrinsic reward; hence, they turn to intrinsic sources of satisfaction, such as their work with children (Kasten, 1984; Lortie, 1975). Given the increasing numbers of difficult-to-teach students, however, this traditional source of job satisfaction may be fading for many teachers, particularly those working in urban settings. Opening opportunities for teachers to be involved in decision making may provide an important source of intrinsic satisfaction (Trist, 1977, in Koch, 1982). This possible association merits study.

Rationale for the study

Current research (Popkewitz & Lind, 1989; Taylor & Bogotch, 1992) indicates that changes anticipated by the restructuring movement are more difficult to achieve than initially believed. Teachers' sense of efficacy and job satisfaction may be critical to promoting the goals of school restructuring. Identifying attributes of schooling that are associated with these two variables can serve as a guide to those interested in reform.

<center>Method</center>

Sample

Data for the study come from the NELS-88 project collected by

NCES, and from the 1990 teacher follow-up. Schools, teachers, and students for different rounds of data collection were selected through a complicated multistage cluster sampling design (see Ingles et al., 1990, 1992 for a discussion). Below, we provide a general sense of data collection pertinent to the proposed study.

In 1988, a random sample of 1,734 schools was selected from a national pool of approximately 39,000 schools with 8th graders. Participation was agreed to in 1,057 of these schools. Actual data is available for 1,035 schools. All 8th graders in these schools received a questionnaire and standardized achievement tests (see Ingles, 1990 for details). Other data available for the sample of schools come from questionnaires completed by parents, teachers, and school administrators, as well as from teacher ratings of students.

In 1990, follow-up data were collected from the same students, most of whom were then in 10th grade. The sampling design was complicated by the natural movement of a majority of these students to other schools in order to attend 10th grade. Among the 3,967 schools in which the base-year sample of students was enrolled in 1990, fewer than a third (908 school) enrolled more than 10 base-year students. These schools were included in the 1990 follow-up. Of those schools at which nine or fewer base-year students were enrolled, 560 were targeted for possible selection dependent on the number of base-year students enrolled. Thus, the 1990 follow-up sample included 1,468 schools, of which students in 1,296 schools agreed to continue their participation.

For the 1990 follow-up, at least two teachers were asked to rate

each student, and to fill a questionnaire regarding their perceptions on a variety of school-related matters. Final data set for this aspect of the project included 9,987 teachers and 27,994 ratings of students.

The teacher data file is structured with the student as the unit of analysis (27,994 records). For the present study, data files on teachers were re-constructed to allow analyses using teachers as the unit of analysis (9,987 teachers).

Variables

Teacher questionnaires included a variety of variables, including teachers' perceptions regarding themselves, their students, and their school. Based on theoretical relevance, factor analyses, and internal consistency checks, composite variables were constructed from single indicators in the data sets, as described below.

(1) Teacher participation in decision making: Ten questions were identified that deal with the teachers' reports of involvement in decision making. On the questionnaire, each item is followed by a 6-point response scale indicating the degree of reported participation. Table 1 presents a summary of these items. The overall alpha for this subscale is equal to .76.

******** TABLE 1 ABOUT HERE ********

(2) School climate: Numerous questionnaire items deal with teacher's perception of school climate. Items range from perceptions of principal leadership, cohesiveness of the staff, and the

social/cultural environment of the school to perceived obstacles to effective teaching, student discipline, and supervision/ mentoring. After a principal components analysis of the more than 50 items that were clearly related to these issues, 3 scales were constructed. These scales pertain to reports of principal leadership style, faculty collegiality, and student discipline. All items were followed by 6-point scales measuring degree of agreement or disagreement with each specific issue. The three scales are as follows.

Principal leadership: This scale includes nine items related to the role of the principal in the school. Items were re-scaled as necessary so that high scores indicate positive perceptions. Cronbach's alpha for this subscale is equal to .90.

******** TABLE 2 ABOUT HERE ********

Faculty collegiality: Seven items, summarized in Table 3, relate to teachers' perceptions of collegiality among the faculty, and the professional support teachers feel is available from their colleagues. This scale has an alpha of .84.

******** TABLE 3 ABOUT HERE ********

Student Discipline: Nine items were clear reports of teacher difficulties as a result of student misbehavior. Responses to these items were recoded, as appropriate, such that a score of 1

indicated a negative affect (presence of deterrents to effective teaching), and a score of 6 represented a report of desirable teaching environment. Hence, the scores on this scale are indicators of perceived desirability of the disciplinary environment at the school. This scale has an alpha of .87. Table 4 summarizes the wording of these items.

******** TABLE 4 ABOUT HERE ********

(3) <u>Teachers' sense of efficacy</u>: Five indicators of perceived teacher efficacy were used to construct the efficacy scale. Again, the Likert-type response range for these items was recoded as needed so that a higher numbered response choice indicates a greater sense of efficacy. Table 5 presents a summary of these items. Cronbach's alpha for this subscale is .71.

******** TABLE 5 ABOUT HERE ********

(4) <u>Job satisfaction</u>: Six indicators of job satisfaction were identified in the data set. Two were direct measures of job satisfaction ("...how often do you feel satisfied with your teaching job?"; "Suppose you could...START OVER AGAIN: ...would you become a teacher?"). Both of these items were followed by a 5-point response scale. Responses were re-scaled to equate to a 6-point scale, to be able to include these with the other 4 satisfaction items that were measured on 6-point scales. These 6 items loaded on the same factor, and were included in the

satisfaction scale. This scale, summarized in Table 6, has a
Cronbach's alpha of .76.

******** TABLE 6 ABOUT HERE ********

Results

Using the NELS-88 data and the 1990 follow-up, this study
investigated the relationship between two predictor variables,
teachers' participation in decision making and school climate, and twc
outcome variables, teachers' job satisfaction and their sense of
efficacy. Extensive factor analytic work resulted in the development
of scales that measure these four variables. For the NELS data, three
scales emerged as measures of school climate; principal leadership,
staff collegiality, and student discipline. These three scales,
combined with the scales measuring each of the other three variables,
gave us a total of six composite variables.

Correlations among these six variables are presented in Table 7.
The nearly 10,000 subjects in the sample virtually assured our finding
statistical significance for each variable, as evident in the table.
The moderately strong correlations between the three components of
climate and teachers' job satisfaction merit attention. The strongest
correlate of teacher satisfaction in this study is the climate
component principal leadership (r=.50, effect size=25%), suggesting
that as principal: assert more responsibility for establishing
dependable routines and for acknowledging faculty efforts, teachers
concomitantly experience greater satisfaction with work. The two

other climate components, faculty collegiality and student discipline also explain substantial proportions of the variance in job satisfaction (r=.47, effect size=22%, and r=.44, effect size=19%, respectively). Thus, these components of school climate appear to be important in fostering teachers' feelings of satisfaction with teaching. The climate variables are less helpful in explaining teachers' sense of efficacy. The strongest effect size obtained in these correlations is a small 5%.

Unexpectedly, teachers' participation in decision making is not a major element in explaining teachers' feelings of either satisfaction or efficacy. The moderate correlation between participation and satisfaction (r=.38) produces an effect size of 14%, smaller than effect obtained with the climate variables. This relatively smaller association between participation in decision making and other variables is contrary to the predictions of the present study.

Two other relationships found in Table 7 deserve note. First, the strongest association produced among these variables is between principal leadership and faculty collegiality (r=.58, effect size=34%). This finding might be especially meaningful to those interested in school reform. It suggests that the role of principal is instrumental in encouraging collaboration among faculty members. Also interesting is the moderate relationship between teachers' job satisfaction and their sense of efficacy (r=.40, effect size=16%). This finding supports the contention that as teachers feel more competent in their job, their positive feelings about work also improve.

******** TABLE 7 ABOUT HERE ********

Table 8 presents the results of a regression analysis performed to predict satisfaction from participation in decision making and the three climate variables. This model explains 37% of the variation in teachers' job satisfaction [R^2=.37, $F(1, 9566)$=1395, p<.001)]. The strongest predictor of teacher satisfaction is student discipline (Beta=.280); the weakest predictor is participation in decision making (Beta=.127). The limited predictive importance of participation is consistently found in the regression analyses computed.

******** TABLE 8 ABOUT HERE ********

Table 9 presents results from a second regression analysis in which efficacy was added to the model because of the relative strength of the correlation between efficacy and job satisfaction found for these data. Adding this variable increases the overall (adjusted) R^2 to .42. As can be seen, including efficacy in the model does not drastically reduce the size of the Beta for the other variables. In other words, relationship between job satisfaction and participation in decision making, as well as the school climate, does not seem to be mediated by the teachers' sense of efficacy. Again, the strongest predictor of satisfaction is student discipline (Beta=.246), while the weakest predictor is decisional involvement (Beta=.105).

******** TABLE 9 ABOUT HERE ********

Although less than half of the variation in teachers' job satisfaction is explained by these models, given the number of predictors in the model, it is considerable. Theoretically, job satisfaction is affected by many variables not included in either model above. School attributes, such as average student SES and degree of urbanicity; and teacher attributes such as gender, age, and ethnicity are examples of these variables. Analysis is in progress at this time to include these in predictive models, using hierarchical linear modeling.

Regression analyses were also performed to predict teachers' sense of efficacy, as presented in Table 10. For the full model, a small 10% of the variance is explained [R^2=.10, $F(1, 9566)$=252, p<.001]. Obviously, the present set of variables do not adequately predict the variation in teachers' perceived efficacy. Nevertheless, the data once again indicate that student discipline is an important predictor, this time of teachers' sense of efficacy (Beta=.146), while decisional participation is again the weakest (Beta=.068).

******** TABLE 10 ABOUT HERE ********

When satisfaction is added to the model, in Table 11, the explained variance increases to 17%. While the variance explained is not great, this final model indicates that job satisfaction is the best predictor of teachers' feelings of efficacy (Beta=.337) in this study. The other variables were uniformily weak as predictors, with participation in decision making the weakest.

Conclusion

The four variables considered in this study, participation in decision making, school climate, teacher job satisfaction, and sense of efficacy, have all been significantly related to school effectiveness and have a place in the restructuring literature. Our aim in pursuing this research was to test relationships among these variables using a national sample of teachers. Findings from such a sample may be useful in shaping policy regarding school reform.

Our results indicate that school climate has a noteworthy association with job satisfaction; however, the relationship between climate and sense of efficacy is limited. Climate was found to be composed of three elements; principal leadership, faculty collegiality, and student discipline. Each of these climate components has a relatively strong association with teachers' feelings of job satisfaction. Of particular importance is the principal leadership aspect of climate.

Strong leadership has been associated with successful schools in the effective schools literature (Purkey & Smith, 1983). Desipte this body of research, principals were often left out of discussions of school restructuring, while interest instead focused on teacher empowerment and professionalization. The results of our study suggest that it may be a mistake to overlook the role of the principal. Not only does the principal appear to influence substantially teachers' feelings of job satisfaction, but principal leadership also affects

other elements of school climate, especially faculty collegiality. Ar
important aim for future research is to examine the impact of climate
on teachers' willingness to pursue innovative teaching methods and the
association between climate and student academic attainment.

The other predictor variable in this study is teachers'
participation in decision making. Importantly given the current
interest in school restructuring, participation does not explain as
much of the variance in job satisfaction as the climate variables, and
accounts for very little of the variance in teachers' sense of
efficacy. As Bartunek and Keys (1979) note, the importance of
decisions in which teachers are involved has a mitigating impact on
teachers' enthusiasm for involvement in making decisions. If teachers
in this study did not feel they were given the opportunity to shape
important decisions at school, it is unlikely that participation would
predict their satisfaction or efficacy. Further study of this are is
needed.

The results obtained here tentatively suggest that satisfaction
mediates the relationship between perceptions of school climate and a
sense of efficacy. More complex model testing, and further studies
are needed to test this proposition. Although a considerable portion
of variation in satisfaction is explained by climate, there
undoubtedly are other school-related variables that might enrich our
prediction of satisfaction. Path analytic models are needed to
explore the degree to which relationship between efficacy and other
variables is mediated by the teachers sense of job satisfaction.
These analyses are planned for the next stage of the project.

References

Alutto, J. A. & Belasco, J. A. (1972). A typology for participation in original decision making. Administrative Science Quarterly, 17, 117-125.

Anderson, C. (1982). The search for climate: A review of the research. Review of Educational Research, 52, 368-420.

Ashton, P. T. (1985). Motivation and the teachers's sense of efficacy. In C. Ames & R. Ames (Eds.), Research on motivation in education: Vol 2. The classroom milieu (pp. 141-174). Orlando, FL: Academic Press.

Bacharach, S. B., Bamberger, P., Conley, S. C., & Bauer, S. (1990). The dimensionality of decision participation in educational organizations: The value of a multi-domain evaluative approach. Educational Administration Quarterly, 26, 126-167.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Bartunek, J. M. & Keys, C. B. (1979). Participation in school decision making. Urban Education, 14, 52-75.

Coladarci, T. & Donaldson, G. A., Jr. (1991). School climate assessment encourages collaboration. NASSP Bulletin, 75(536), 111-119.

Conway, J. A. (1984). The myth, mystery, and mastery of participative decision making in education. Educational Administration Quarterly. 20, 11-40.

Duke, D. L., Showers, B. K., & Imber, M. (1980). Teachers and shared decision making: The costs and benefits of involvement. Educational Administration Quarterly, 16(1), 93-106.

Eubanks, E. E. & Levine, D. M. (1983). A first look at effective schools projects in New York City and Milwaukee. Phi Delta Kappan, 64, 697-702.

Greenberg, E. S. (1975). The consequences of worker participation: A clarification of the theoretical literature. Social Science Quarterly, 56, 191-209.

Gibson, S. & Dembo, M. (1984). Teacher efficacy: A construct validation. Journal of Educational Psychology, 76, 569-582.

Guskey, T. R. (1988). Teacher efficacy, self concept and attitudes toward the implementation of instructional innovation. Teaching and Teacher Education, 4, 63-70.

Halpin, W. W. (1966). Theory and research in administration. New York: Macmillan.

Hoy, W. K., Tarter, C. J., & Bliss, J. R. (1990). Organizational climate, school health and effectiveness: A comparative analysis. Educational Administration Quarterly, 26, 260-279.

Hoy, W. K. & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. Elementary School Journal, 93, 355-372.

Ingles, S. J., Scott, L. A., Linmark, J., Frankel, M., and Myers, S. L. (1992). National Education Longitudinal Study of 1988, first follow-up: Teacher component data file user's manual. Washington, D. C.: U.S. Department of Education.

Kasten, K. L. (1984). The efficacy of institutionally dispensed rewards in elementary school teaching. Journal of Research and Development in Education, 17(4), 1-13.

Koch, E. L. (1982). QUALITY OF WORKING LIFE (QWL) Some potential applications to education. Urban Education, 17, 181-197.

Lawler, E. E., III & Porter, L. W. (1967). The effect of performance on job satisfaction. Industrial Relations, A Journal of Economy and Society, 7(1), 20-28.

Little, J. W. (1982). Norms of collegiality and experimentation: Work place conditions of school success. American Educational Research Journal, 19, 325-340.

Locke, E. D. (1983). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of Industrial and Organizational Psychology (pp. 1297-1349). New York: John Wiley & Sons.

Locke, E. D. & Schweiger, D. M. (1979). Participation in decision-making: One more look. In B. M. Staw (Ed.), Research in Organizational Behavior (pp. 265-339). Greenwich, CN: JAI Press.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.

Lowin, A. (1968). Participative decision making: A model, literature critique, and prescriptions for research. Organizational Behavior and Human Performance, 3, 68-106.

McCormack-Larkin, M. (1985). Ingredients of a successful school effectiveness project. Educational Leadership, 42(6), 31-37.

Pallas, A. (1988). School climate in American high schools. Teachers College Record, 89, 541-554.

Poole, M. G. & Okeafor, K. R. (19898). The effects of teacher efficacy
    and interactions among educators on curriculum implementation.
    Journal of Curriculum and Supervision, 4, 146-161.

Popkewitz, T. S. & Lind, K. (1989). Teacher incentives as reforms:
    Teachers' work and the changing control mechanism in education.
    Teachers College Record, 90, 575-594.

Prestine, N. & Bowen, C. (1993). Benchmarks of change: Assessing
    essential school restructuring efforts. Educational Evaluation
    and Policy analysis, 15, 298-319.

Purkey, S. C. & Smith, M. S. (1983). Effective schools: A review.
    Elementary School Journal, 83, 427-452.

Rutter, M., Maughn, B., Mortimore, P., & Ousten, J. (1979). Fifteen
    thousand hours: Secondary schools and their effects on children.
    Cambridge: Harvard University Press.

Smylie, M. A. (1990). Teacher efficacy at work. In P. Reyes (Ed.),
    Teachers and their workplace: Commitment, performance, and
    productivity (pp. 48-66). Newbury Park, CA: Sage.

Taylor, D. L. & Bogotch, I. E. (1992, January). Teacher decisional
    participation: Rhetoric or reality? Paper presented at the annual
    meeting of the Southwest Educational Research Association, San
    Antonio. (ERIC Document Reproduction Service No. 343 878)

Trist, E. L. (1977, November). Adapting to a changing world. Paper
    presented at the Sixth International Personnel Cor.ference,
    Montreal, Canada.

Table 1. Teachers' report of participation in decision making

Variable Description (Decisions over which teachers indicate influence or control.)	Mean	SD	r*
DISCIPLINE POLICY	2.63	1.12	.52
INSERVICE PROGRAMS	2.88	1.14	.42
GROUPING STUDENTS	2.56	1.19	.46
ESTABLISHING CURRICULUM	3.23	1.17	.57
PRINCIPAL CONSULTS STAFF BEFORE DECISIONS	3.54	1.45	.35
TEXTS/MATERIALS	3.98	1.50	.47
CONTENT TAUGHT	4.32	1.48	.45
TEACHING TECHNIQUES	5.55	0.78	.37
DISCIPLINING	4.94	1.15	.37
AMOUNT OF HOMEWORK	5.62	0.74	.25

* Corrected item-total correlation

Table 2. The Principal leadership Component of School Climate

Variable Description	Mean	SD	r*
PRINCIPAL IS GOOD AT GETTING RESOURCES	4.66	1.28	.61
GOALS AND PRIORITIES FOR THE SCHOOL ARE CLEAR	4.40	1.23	.63
PRINCIPAL DEALS EFFECTIVELY WITH OUTSIDE PRESSURES	4.35	1.38	.60
PRINCIPAL MAKES PLANS & CARRIES THEM OUT	4.36	1.30	.73
ADMINISTRATION KNOWS PROBLEMS FACED BY THE STAFF	4.08	1.35	.68
STAFF MEMBERS ARE RECOGNIZED FOR JOB WELL DONE	3.74	1.40	.60
PRINCIPAL LETS STAFF KNOW WHAT'S EXPECTED	4.31	1.23	.78
PRINCIPAL IS INTERESTED IN INNOVATION	4.24	1.27	.68
RULES FOR STUDENT BEHAVIOR ARE ENFORCED	3.51	1.54	.58

* Corrected item-total correlation

Table 3. Faculty Collegiality Component of School Climate

Variable Description	Mean	SD	r*
CAN COUNT ON STAFF MEMBERS TO HELP OUT	4.55	1.19	.58
COLLEAGUES SHARE BELIEFS ABOUT SCHOOL MISSION	4.72	1.04	.59
DEPARTMENT CHAIR'S BEHAVIOR IS SUPPORTIVE	4.87	1.21	.41
TEACHERS AT SCHOOL ARE CONTINUALLY LEARNING	4.28	1.08	.62
BROAD AGREEMENT AMONG FACULTY ABOUT SCHOOL MISSION	4.11	1.20	.64
GREAT DEAL OF COOPERATIVE EFFORT AMONG STAFF	4.34	1.14	.74
SCHOOL SEEMS LIKE A BIG FAMILY	3.42	1.32	.60

Table 4 Student Discipline Component of School Climate

Variable Description	Mean	SD	r*
MISBEHAVIOR IN GENERAL	3.94	1.54	.54
TARDINESS AND CLASS-CUTTING	3.43	1.61	.66
ATTITUDES THAT REDUCE ACADEMIC SUCCESS	3.00	1.43	.52
DRUG/ALCOHOL USE	4.10	1.29	.53
TARDINESS TO CLASS	2.39	0.89	.63
ABSENTEEISM	2.08	0.88	.67
CLASS CUTTING	2.59	0.94	.67
PHYSICAL CONFLICTS	3.03	0.78	.55
VERBAL ABUSE OF TEACHERS	2.98	0.87	.56

* Corrected item-total correlation

Table 5 Teachers' Sense of Efficacy

Variable Description	Mean	SD	r*
CAN GET THROUGH TO MOST DIFFICULT STUDENT	3.85	1.27	.47
RESPONSIBLE TO KEEP STUDENTS FROM DROPPING	4.44	1.10	.46
CHANGE APPROACH IF STUDENTS ARE NOT DOING WELL	4.20	1.04	.46
DIFFERENT METHODS CAN AFFECT STUDENT ACHIEVEMENT	4.26	0.94	.55
TEACHER MAKES A DIFFERENCE IN STUDENTS' LIVES	4.58	0.95	.38

* Corrected item-total correlation

Table 6. Job Satisfaction

Variable Description	Mean	SD	r*
HOW OFTEN FEELS SATISFIED WITH JOB	2.86	1.82	.57
WOULD BECOME A TEACHER AGAIN IF I DID OVER	3.46	1.32	.51
ENCOURAGED TO EXPERIMENT WITH TEACHING	4.20	1.28	.35
USUALLY LOOK FORWARD TO EACH WORKING DAY	4.53	1.12	.66
FEEL WASTE OF TIME TO DO BEST AT TEACHING	4.43	1.48	.51
HAPPY JUST TO GET THROUGH THE DAY	3.34	0.80	.36

* Corrected item-total correlation

Table 7. Correlations Between the Variables

Variable	Variable				
	1	2	3	4	5
1. Principal leadrshp					
2. Fac. collegiality	.58*				
3. Stud. discipline	.37*	.33*			
4. Partic. in decisions	.39*	.31*	.32*		
5. Job satisfaction	.50*	.44*	.47*	.38*	
6. Efficacy	.24*	.21*	.24*	.20*	.40*

* p<.01

Table 8. Multiple Regression Predicting Teachers' Job Satisfaction

Variable	B	SE B	Beta	t
Principal leadrshp	.115	.0047	.254	24.215*
Student discipline	.165	.0053	.281	31.181*
Faculty collegiality	.125	.0081	.154	15.318*
Partic. in decisions	.073	.0052	.127	13.998*

* p<.001

Table 9. Multiple Regression Predicting Teachers' Job Satisfaction
When Efficacy is Added to the Model

Variable	B	SE B	Beta	t
Principal leadrshp	.102	.0046	.227	22.441*
Student discipline	.144	.0051	.245	28.146*
Faculty collegiality	.111	.0078	.138	14.254*
Partic. in decisions	.060	.0050	.104	12.008*
Efficacy	.267	.0088	.238	29.003*

Table 10. Multiple Regression Predicting Teachers' Sense of Efficacy

Variable	B	SE B	Beta	t
Principal leadrshp	.0462	.0050	.115	9.158*
Student discipline	.0776	.0056	.148	13.809*
Faculty collegiality	.0479	.0056	.093	8.583*
Partic. in decisions	.0495	.0086	.069	5.724*

* p<.001

Table 11. Multiple Regression Predicting Teachers' Sense of Efficacy When Satisfaction is Added to the Model

Variable	B	SE B	Beta	t
Principal leadrshp	.011	.0050	.028	2.321*
Student discipline	.028	.0057	.053	4.734*
Faculty collegiality	.026	.0054	.050	4.754*
Partic. in decisions	.012	.0084	.016	1.377*
Satisfaction	.303	.0104	.340	28.695*

* p < .02