Effective Schools: Interpreting the Evidence

SUSAN J. ROSENHOLTZ
University of Illinois at Urbana-Champaign

This paper develops a theoretical context with which to understand the evidence on effective schools. I begin by specifying a central problem in the operation of inner-city schools—that good teachers are difficult to recruit and almost impossible to retain because the rewards of teaching do not outweigh the frustrations. Exceptions to this are identified in effective schools—schools that are distinctive in important ways. Principals of effective schools have a unitary mission of improved student learning, and their actions convey certainty that these goals can be attained. Such actions include recruiting outstanding teachers who have goals similar to their own and to those of other staff, organizationally buffering teachers to ensure that their efforts are directed toward raising student achievement, monitoring the academic progress teachers make, supplying additional technical assistance to needy teachers, and providing—mostly in concert with teaching colleagues—the opportunities to establish strategies to achieve instructional goals. Because the work of these principals pivots around improving student achievement, teachers have specific, concrete goals toward which to direct their efforts and know precisely when those efforts produce the desired effects. They are further encouraged by a supportive collegial group that lends ideas and assistance where needed. In turn, by achieving goals of student learning, teachers are provided with necessary motivation to continue to produce. The more teachers succeed with students, the greater their certainty that it is possible to succeed and the greater their experimentation procuring success.

Until recently, studies of inner-city schools serving low-SES, minority students painted a pretty dismal and discouraging picture. Research during the last decade, however, has produced some anomalous findings—rare instances where inner-city schools, presumably because of their organizationally unique properties, have produced standardized achievement-test results for low-SES youngsters far exceeding schools without such properties that serve identical populations. These effective schools substantially decrease, but seldom eliminate, traditional at-

tainment gaps in basic skill acquisition between socioeconomic groups (see Armor et al. 1976; Brookover et al. 1979; Rutter et al. 1979).

Careful analysts of the effective schools research find it not without methodological problems (Cuban 1983; Purkey and Smith 1983; Ralph and Fennessey 1983; Rowan, Bossert, and Dwyer 1983). These problems include (1) the comparison of extreme outliers (highly effective with extremely ineffective) that neglect both the properties of "average" schools and the measurement of random error; (2) the reliance on case studies that provide no estimates of the relative importance of critical variables and, more importantly, their direction of causality; (3) the cross-sectional rather than longitudinal design of most studies that raises questions about the stability of school effectiveness over time and, therefore, the very reliability of the findings; (4) the failure within some studies to control for confounding variables such as student SES; and (5) the lack of generalizability to populations other than elementary schools.

Mindful of these methodological pitfalls, there are at least three reasons to regard this body of findings as much more than spurious. First, several studies describe "turnaround" schools that, because of changes in organizational conditions, became more successful (Breckenridge 1976; Blust and Dumaresq 1983; Clark and McCarthy 1983; Morris 1982; Phi Delta Kappa 1980; Hunter 1979; Sizemore, Brossard, and Harrigan 1983). Second, even when controlling for random error, analysts find that organizational characteristics account for 32 percent of *between-school* variance in student achievement (Rowan et al. 1983). Third, effective schools research has been conducted within a relatively compressed time frame, not building serially from one study to the next; yet all studies produce common findings with remarkable consistency. In fact, only a few studies (Glenn and McLean 1981; Wellisch et al. 1978) review a body of effective schools research at all. That the majority of these studies are unpublished further restricts the construction of cumulative knowledge. It strains the limits of credibility that different studies, conducted by different investigators in different urban areas, could produce strikingly similar findings by chance.

SUSAN J. ROSENHOLTZ is an associate professor of education at the University of Illinois at Urbana-Champaign. Her research interests include the sociology of teaching and the sociology of the classroom. Currently, she is principal investigator (with two colleagues from Vanderbilt University) of an NIE-funded study of the organizational conditions of teaching. The study represents an initial test of the model outlined in this paper.

While these reasons are persuasive, it is obvious that additional research is needed to correct methodological weaknesses. However, something more is required if effective schools research is to be at all useful—greater conceptual clarity about how specific organizational characteristics, both individually and in combination, make schools more or less effective. As a starting point in that direction, this paper develops a theoretical context in which to understand the evidence on effective schools. The analysis presented here weaves strands of knowledge from prior research on the sociology of teaching together with case study and other findings about effective schools.

Because my intent is to interpret rather than review the research on effective schools, the studies described here are representative more than exhaustive. Only those studies that adequately controlled for student SES are included. Although some are "outlier" studies, investigations that treated school effectiveness as a continuous variable are also included. Standardized reading achievement gains or residuals were used to measure effectiveness, but a few studies also examined students' skill acquisition in math. All studies sample predominantly poor and minority children in urban areas. Finally, although most studies are cross-sectional, longitudinal studies are included where available (Glenn and McLean 1981; Hunter 1979; Rutter et al. 1979; Sizemore et al. 1983).

Research reviewed on the sociology of teaching is far less limited in scope. These studies sample both elementary and secondary schools serving varied student populations. Although the two bodies of literature are not strictly comparable, they are nonetheless useful to a theoretical examination of critical school processes.

I begin by specifying a central problem in the operation of inner-city schools—that good teachers are difficult to recruit and almost impossible to retain because the rewards of teaching do not outweigh the frustrations. Exceptions to this are identified in effective schools—schools that are distinctive in important ways. Principals in these schools have a unitary mission of improved student learning, and their actions convey certainty that these goals can be attained. Such actions include recruiting outstanding teachers who have goals similar to their own and to those of other staff, organizationally buffering teachers to ensure that their efforts are devoted to raising student achievement, monitoring the academic progress teachers make, supplying additional technical assistance to needy teachers, and providing—mostly in concert with teaching colleagues—the opportunities to establish strategies to achieve instructional goals.

Because the work of these principals pivots around improving student achievement, I will argue that teachers have specific, concrete goals

toward which to direct their efforts and know precisely when those efforts produce the desired effects. They are further encouraged by a supportive collegial group that lends ideas and assistance where needed. In turn, by achieving goals of student learning, teachers are provided with necessary motivation to continue to produce. The more teachers succeed with students, the greater their certainty that it is possible to succeed and the greater their experimentation procuring success.

I have sketched out the argument in broad strokes. The analysis begins by identifying some of the organizational problems of urban schools and how they develop.

The Balance between Contributions and Inducements

Of the many resources required by schools, the most vital are the contributions—of effort, commitment, and involvement—from teachers. Not only are the quality of these contributions related integrally to institutional goals, they are ultimately the means by which all other resources are acquired (March and Simon 1958). Good schools, for example, are able to attract larger pools of applicants than bad schools (Becker 1952a; Bruno and Doscher 1981; Greenberg and McCall 1974; Morris 1982; Spuck 1974). Thus, central to a school's functioning is its ability to motivate teachers to make continuous contributions to it rather than to some competing organization.

Organizational participants are motivated to remain within a setting and to contribute productively only so long as the inducements offered are as great or greater than the contributions they are asked to make (March and Simon 1958). That is, the rewards of teaching must outweigh the frustrations. Rewards flow directly from estimates of one's independence, worth, and special competencies, as well as from external recognition that may be offered by actors within the organizational setting—that is, students, colleagues, or principals (March and Simon 1958).

The primary psychic rewards for most teachers come from students' academic accomplishments—from feeling certain about their own capacity to affect student growth and development (Bishop 1977; Bredeson, Fruth, and Kasten 1983; Glenn and McLean 1981; Lortie 1975; McLaughlin and Marsh 1978; Sergiovanni 1974). Indeed, teacher certainty about professional practice—their sense of efficacy about pedagogical skills—and student achievement are very highly correlated (Ashton, Webb, and Doda 1983; Armor et al. 1976; Azumi and Madhere 1983; Brookover et al. 1979; McLaughlin and Marsh 1978), and

professional certainty is positively related to teachers' decisions to remain in teaching (Bredeson et al. 1983; Chapman 1984; Chapman and Hutcheson 1982; Litt and Turk 1983). Predictably, defectors from teaching feel uncertain about their ability to make a difference (Chapman 1984; Frataccia and Hennington 1982; Litt and Turk 1983). Thus, for most teachers, student learning or progress is a needed inducement in the decision to stay in teaching.

Relatively speaking, the proportion of psychic rewards accruing to teachers in most urban schools is often lower than is true in other settings. Low-SES students seem to have more difficulty making academic progress (Levy 1970; Roberts 1971; Leacock 1969; Becker 1952*b*; Azumi and Madhere 1983). They are seen as more aggressive and less respectful (Davidson and Lang 1960; Roberts 1971; Levy 1970; Leacock 1969; Becker 1952*a*) and as having a negative attitude toward learning (Becker 1952*a*; Leacock 1969; Roberts 1971; Warren 1975). Because of these conditions, most inner-city schoolteachers complain that their custodial function far outweighs their educative function (Becker 1952*a*; Leacock 1969; Levy 1970; Roberts 1971; Warren 1975). This takes on additional significance in light of findings that the number of behavioral sanctions exhibited by teachers during classroom instruction time is correlated negatively with student achievement (Coleman, Hoffer, and Kilgore 1982; Cooley and Leinhardt 1980; Fisher et al. 1980; Good and Grouws 1977; Stallings 1980). Thus, just as student learning is the primary source of psychic reward for teachers, difficult relations with students is their primary source of psychic debilitation (Bredeson et al. 1983; Coates and Thoresen 1976; Lee and Pruitt 1979; Sergiovanni 1974). Although the absence of student disruption does not automatically imply teachers' acquisition of psychic rewards, it is a necessary condition along the way.

Dissatisfaction with teaching may manifest itself most dramatically in a decision to defect. Not unexpectedly, high teacher turnover is a critical problem for many urban schools (Becker 1952*b*; Bruno and Doscher 1981; Dworkin 1980; Greenberg and McCall 1974; Griffiths, Goldman, and McFarland 1965; Leacock 1969; Murnane 1981; Sizemore et al. 1983). Predictably, failure to deal effectively with disorderly students is an often-cited explanation for teacher attrition (Bredeson et al. 1983; Litt and Turk 1983). For example, one junior high school in Morris's (1982) sample reported a staggering 57 percent teacher turnover within one year (see also Leacock 1969; Levy 1970). Especially vulnerable to defection from inner-city schools are the best teachers who seek and often find new teaching assignments with greater nonpecuniary benefits (Anderson and Mark 1977; Dworkin 1980; Greenberg and McCall 1974; Leacock 1969; Levy 1970).

Equally troubling is the finding that beginning teachers, having the least seniority in the allocation of good placements, are most likely to be placed in inner-city schools. Thus, teachers in these settings are consistently younger, less experienced, and less advanced in training (Greenberg and McCall 1974; Owen 1972; Pedersen 1970; Sizemore et al. 1983). Together these findings help explain why attrition from teaching is highest in the first few years (Burlingame 1980; Charters 1970; Dworkin 1980; Pedersen 1970; Schlechty and Vance 1983). The failure of new recruits to collect sufficient nonpecuniary benefits within urban schools and their lack of seniority to make reassignment possible combine to produce large discrepancies in the inducement-contribution balance. This imbalance, together with the neophyte's low investment of human capital (i.e., time), results in defection. The paradox of the situation is that schools needing good teachers the most get the fewest of them and have the hardest time keeping the ones they get.

Antecedent to defection from urban schools is teacher dissatisfaction. The link between dissatisfaction and the desire to leave, however, may be mediated by perceived alternatives available (March and Simon 1958). In the absence of satisfactory alternatives (as, e.g., in the case of limited mobility due to declining enrollments), teachers dissatisfied with the inducements of teaching may withhold service instead. That is, where organizational inducements are lowered, so too are attending contributions.

As the ultimate manifestation of withheld service, disengaged teachers may resort to chronic absenteeism, a problem prevalent in many inner-city schools (Bruno 1981; Bruno and Doscher 1981; Levy 1970; Spuck 1974). For example, in a health survey of some 9,000 teachers conducted by Landsmann (1977), 75 percent of the respondents stated that some to most of their absences the previous year were the result of teaching-related stresses. There is, in fact, some evidence that teachers in some urban schools use sick days to pursue alternative careers (Bruno 1981). The significance of teacher absence for student learning is relatively clear—substitute teachers in inner-city schools have difficulty maintaining order, let alone instructional progress (Bruno 1981; Bruno and Doscher 1981; Levy 1970). Thus, frequent teacher absences represent large proportions of "down time" where students cannot learn. In this ironic way, teacher absenteeism exacerbates the imbalance between their own rewards and frustrations.

A striking exception to the findings presented above is the instructionally effective urban school. Relative to most inner-city schools, in effective schools, rewards earned through work with students are far greater. Plihal (1982) found, in fact, that successful inner-city teachers

place greater emphasis and importance on rewards resulting from student learning than do successful teachers in the suburbs. It may well be that academic success with "difficult" students is a particularly satisfying career accomplishment. In support of this interpretation, responding to questions about craft pride, teachers interviewed by Lortie (1975) placed special emphasis on success with students who were considered beyond help by others. It is therefore not surprising that teachers in successful inner-city schools report feeling greater certainty about the technology of teaching than do teachers serving low-SES school populations elsewhere (Ashton et al. 1983; Armor et al. 1976; Azumi and Madhere 1983; Glenn and McLean 1981).

With the potential for and frequent realization of large psychic dividends, effective schools do not experience high teacher turnover (Brookover et al. 1979; California State Department of Education [CSDE] 1980; Phi Delta Kappa 1980; Sizemore et al. 1983; Venezky and Winfield 1979; Wynne 1980) and thus have a higher proportion of experienced teachers among members of the staff (Brookover et al. 1979; Glenn and McLean 1981; Sizemore et al. 1983). In all but the most effective, then, the capacity of inner-city schools to retain teachers is constrained sharply by the clientele that they serve.

That teacher rewards, attrition, and absenteeism vary with school level factors underscores the strength of organizational inducements in mobilizing the commitment and involvement of teachers. The remainder of this paper explores organizational conditions that provide teachers with the needed inducement to make contributions to inner-city schools. Within the analysis, teacher rewards, attrition, and absenteeism are treated as indicators of the balance between inducements and contributions. I will point to the importance of goals as a means of both ascertaining school effectiveness and motivating and directing organizational activities within the school. The effective school, I will argue, relies almost exclusively on its organizational goals as incentives to attract and retain teachers. Teachers enlist because they want to assist in helping to achieve the goals espoused by the school, and the school, in achieving its goals, provides sufficient inducements to members to secure a continuing flow of contributions (see Clark and Wilson 1961).

The Importance of Goals

Loose versus Tight Coupling

Endorsing the maxim "things aren't always what they seem," organizational theorists frequently distinguish between the professed, official

goals of an organization and the organization's operational goals. In many cases, operational goals are concrete means to achieve professed goals (Perrow 1961). Sometimes, however, the two are at odds. The disjuncture between professed and operational goals reveals a single underlying problem—the absence of agreement among organizational participants about both the outcomes they seek and the prescribed ways by which these outcomes can be reached. Organizational theorists describe this occurrence as loose coupling (March 1978; Weick 1976). Schools have been characterized as loosely coupled systems because of ambiguous goals (teachers do not appear oriented to the pursuit of consistent, common objectives), unclear technology (there is no agreed upon "best way" to implement goals), and fluid participation (teachers or students move in and out of schools sporadically). Although there may be professed goals about the purpose of schooling, organizational behavior is not guided by them. Managerial-level activities (tasks that set the conditions under which teaching occurs) are only marginally linked to technical-level activities (which pertain to the content and process of instruction). For example, despite espoused goals of student learning, data on student performance are almost never collected by principals to evaluate teacher performance, despite the fact that data are frequently available (Dornbusch and Scott 1975; Meyer and Rowan 1977).

The disjuncture between professed and operational goals is nowhere more apparent than in ineffective urban schools. Perhaps the most profound effect of student disorder in the inner-city school is that pupil control problems become paramount in collegial and administrative relations, and the goal of order displaces academic achievement as the definition of effectiveness (Hoy 1969; Leacock 1969; Levy 1970; Morris 1982; Rutter et al. 1979; Willower 1969; Willower and Jones 1963; Wynne 1980). When this occurs, teachers' inability to control students is taken as prima facie evidence of incompetence (Hoy 1969; Leacock 1969; Willower and Jones 1963; Wynne 1980). Despite all this, however, there is an absence of agreement on the nature of disciplinary standards, on the manner in which they should be enforced, on who should enforce them, and even on the definition of what constitutes a disciplinary infraction (see, e.g., Leacock 1969; Levy 1970; Morris 1982; Rutter et al. 1979; Spartz et al. 1977; Wynne 1980). Thus, what is insubordination to one teacher may be playful banter to another. What is cheating in one classroom may be cooperation in the next. What is considered student autonomy by some may be blatant defiance for others.

A key proposition advanced in this paper is that effective schools differ dramatically in form from their loosely coupled counterparts.

There is tighter congruence between values, norms, and behaviors of principals and teachers, and the activities that occur at the managerial level are aligned closely with, and facilitative of, the activities that occur at the technical level. In effective schools there are clearly defined official goals concerning students' basic skill acquisition (Brookover et al. 1979; Edmonds and Frederiksen 1979; Glenn and McLean 1981; Morris 1982; Phi Delta Kappa 1980; Sizemore et al. 1983; Weber 1971; Wynne 1980), agreements between administrators and teachers as to the importance of these goals (Glenn and McLean 1981; Morris 1982; Rutter et al. 1979; Sizemore et al. 1983; Wynne 1980), and prescribed means by which to implement them consistently (Morris 1982; Sizemore et al. 1983; Phi Delta Kappa 1980; Rutter et al. 1979; Wynne 1980). Agreement about goals and means to achieve them increases the school's capacity for rational planning and action. There is an organizational basis for directing behavior, for motivating behavior, for justifying behavior, and for evaluating behavior. Indeed, two studies illustrate the power that is wielded by collective thinking. Spuck (1974), sampling teachers from 28 California high schools, found that irrespective of salary, physical environment, and student SES, schools reporting low levels of teacher absenteeism also report high faculty agreement with organizational goals. Further, Wilson and Corbett (1983), in a longitudinal study of planned change, report that within the elementary, junior high, and high schools that they sampled, tighter coupling increased the implementation of new teaching practices. Precisely how this consensus on school life develops is the subject I take up next.

Principal Attitude and Behavior

Uncertainty about the technology of teaching and its capacity to bring about positive changes in student achievement is the enemy of rational planning and action. Ineffective principals, uncertain that changes in student performance can actually be brought about, appear not to act in ways that make student learning possible. When students fail to make academic progress in unsuccessful schools, principals vilify teachers and students as the culprits (see, e.g., Brookover et al. 1979; CSDE 1980; Levy 1970; Morris 1982). From the ineffective principal's viewpoint, it may make no sense to set academic goals if teachers or students seem incapable of reaching them.

In contrast, effective principals convey certainty that teachers can improve student performance and that students themselves are capable of learning. Goals of high student achievement are almost always at the forefront of their planning and action. They set explicit operational

goals regarding students' academic performance, which are clearly communicated to their staff members (Coulson 1977; Glenn and McLean 1981; Phi Delta Kappa 1980; Sizemore et al. 1983; Spartz et al. 1977; Weber 1971). For instance, in the elementary schools studied by Venezky and Winfield (1979), successful principals insisted that 60 percent of their student population read at grade level or above. In identifying problems of academic progress, effective principals press for greater commitment on the part of teachers (Armor et al. 1976; Brookover et al. 1979; Rutter et al. 1979; Sizemore et al. 1983), hold teachers accountable for their actions (CSDE 1980; Glenn and McLean 1981; Hunter 1979; Sizemore et al. 1983), and communicate high expectations about the progress teachers are capable of making (Brookover et al. 1979; CSDE 1980; Phi Delta Kappa 1980; Sizemore et al. 1983; Venezky and Winfield 1979; Weber 1971; Wellisch et al. 1978). They refuse to set aside basic skill acquisition even for the lowest achievers (Brookover et al. 1979; Sizemore et al. 1983; Wellisch et al. 1978; Wynne 1980), and insist that students be retained until academic standards are met (Sizemore et al. 1983; Wellisch et al. 1978; Wynne 1980).

Through these and other actions described below, administrative leaders communicate a certainty that student outcomes are linked strongly to teacher effort. Certainty defines and organizes principal action to facilitate teacher effort. In fact, as the reader will discover next, effective principals seek ways to reduce uncertainty so as to increase their capacity for rational planning (Scott 1981). If basic skill acquisition is the operational goal, and teacher effort is the means to attain it, it makes sense to find ways to optimize that effort in order to maximize student mastery.

Recruitment and Selection of Teachers

One way to both reduce uncertainty and increase goal consensus is to recruit like-minded staff. Not unexpectedly, effective principals recruit and attract teachers who accept and share the prevailing standards and values of the faculty, with the goals of the school serving as focal points around which decisions are made. Wynne (1980), for example, found that although there was nothing obvious about the way hiring decisions were made in ineffective schools (reflecting uncertainty about the technology of teaching), effective school administrators screened applicants carefully, checking references and using interviews to articulate school goals and expectations. In a finding similar to Wynne's, the principals of eight effective inner-city schools described in the Phi Delta Kappa Study (1980) reported handpicking most members of

their staff. Applying school goals to the selection of teachers serves as an important control mechanism to ensure the school's quality.

While social class differences between schools bear directly on the schools' ability to attract teachers (Lortie 1973), the high visibility of effective schools increases the probability that they will be distinguished from others. Indeed, in Spuck's (1974) study, schools demonstrating a high level of pride in meeting goals and reporting a high level of positive interaction among faculty accounted for 43 percent of the variance in ease of teacher recruitment. Not surprisingly, both of these intrinsic reward variables characterize effective inner-city schools. Thus, by carefully controlling the flow of teachers, the homogeneity of values between faculty members in effective schools is sustained.

The importance of careful selection procedures cannot be overemphasized. If principals fail in their efforts to attract good teachers and keep them, they become trapped in a cycle of high turnover and low school productivity. Schools that consistently have large contingents of new recruits are particularly demanding on principals' time because principals are expected to supervise closely the work of inexperienced teachers (Dreeben 1970). In part because they are constrained by high staff turnover and lack of goal consensus, ineffective principals often have less time to devote to the instructional goals of the school. The other side of the coin is that more effective principals spend less time dealing with the above problems, and thus have more time to move the school toward instructional goals. In essence, effective principals have more time to be effective. In this way, inequalities in educational productivity between schools are maintained.

Teacher fit.—Attracting and selecting outstanding teachers is one problem; having them "fit" is still another. A teacher's effectiveness is not an objective, uniform, or unvarying judgment. It depends heavily on the specific situation into which the teacher is placed, the expectations and behavior of one's colleagues, and the "goodness of fit" between the teacher's own behavior and school norms. The same individual who fits poorly into one situation (and is judged to be unsuccessful in it) may fit superbly and successfully into another. Further, although it is easier for new recruits to settle into effective than ineffective schools (for reasons that will later become apparent), occasional "fit" problems are bound to arise. Then, too, there are the existing, unassessed teachers who must be dealt with by any principal taking over a new assignment.

Teachers who threaten the exchange between inducements and contributions in effective schools meet with strong organizational resistance. They may be isolated from their professional group (Levy 1970; Phi Delta Kappa 1980; Wynne 1980); they may suffer a reduction

in resource allocation (Warren 1975; Armor et al. 1976); or, in extreme cases, they may be targeted for removal from the situation (Sizemore et al. 1983; Phi Delta Kappa 1980; Wynne 1980). For instance, Levy (1970) describes the manner in which one effective inner-city principal harassed and badgered errant teachers who "weren't putting out" until they either modified their behavior or departed. Therefore, it seems that the homogeneity of values among staff in effective schools is protected from disturbance in two important ways: by carefully controlling the flow of teachers into the school and then by closely monitoring them thereafter. These monitoring procedures are described more fully below.

Induction into Teaching

A second way in which consensus on school purpose develops lies in the nature of teacher socialization to school norms. Although entrants may come with a propensity to accept school goals, their ultimate adoption of them is in no small way determined by how successfully they are socialized. Thus, organizational socialization refers to the process by which entrants acquire the perspectives and norms of those within the organization. The success of organizational socialization can be observed when individuals take on institutional realities as their own subjective perceptions of what is real. Institutional views become accepted as objective fact rather than opinion through recurrent patterns of daily interaction; we come to know what is fact through an interactive process in which each of us learns what others seem to regard as fact. This perspective leads to several propositions about the mark of successful socialization for teacher entrants.

Peer socialization and collegial norms.—Students of educational sociology (Bishop 1977; Little 1982; Lortie 1975) distinguish between two normative climates of schools that give rise to differing patterns of staff interaction. As noted above, these recurrent patterns of exchange shape the entrant's notions about the "reality" of the central purpose of teaching within the school and the "reality" of precisely what constitutes good collegial relations.

One setting is characterized by isolation from professional knowledge. Isolation in schools results from a cellular division in which teachers spend large portions of their days separated physically from colleagues, without the benefit of seeing or hearing others. In Lortie's (1975) sample of elementary- and secondary-level teachers, 45 percent reported having no contact with other teachers in the course of their workday, and another 32 percent reported having only occasional contact. Similar

results are reported in Goodlad's comprehensive *Study of Schooling* (see Tye and Tye 1984).

In isolated settings, teachers believe they alone are responsible for running their classrooms and that to do so successfully requires a maximum amount of autonomy. Requests for assistance among staff members frequently are interpreted as a lack of teaching competence (Bishop 1977; Lortie 1975). For example, Glidewell et al. (1983), sampling teachers from 10 Chicago elementary schools, found that help-seeking behavior implied a reduction in status among the faculty, and help-giving behavior implied an increase in status. In fact, teachers considered autonomy to be something of a moral imperative; they felt clear moral constraint against offering suggestions to other teachers about even the most routine matters.

Where teachers are cut off from their colleagues for major portions of the day, the effects are profound. First, there is little opportunity to develop collectively held notions about what is important to emphasize in teaching, and about how success should be gauged. Indeed, under isolated working conditions, teachers' classroom goals are strikingly individualistic and require indicators of effectiveness based upon individual beliefs about what should be learned (Bishop 1977; Lortie 1975; Tye and Tye 1984).

A second effect of teacher isolation is that informal relations among teachers are unlikely to center around the substance of teaching as a common work activity. When teachers in isolated settings talk together, the substance of their conversations rarely includes instructional topics to avoid any conclusions about the relative competence implied by requesting or offering assistance. Bishop (1977) found that despite a relatively extensive set of informal networks existing in isolated settings, teachers do not tend to become involved with their friends in work-related issues.

Glidewell et al. (1983), however, did find evidence of "experience swapping" in isolated settings where related classroom experiences were somewhat sympathetically shared. However, Willower and Jones (1963) found that the content of such "swapping" in inner-city elementary schools focused on themes of besting behavior about the way in which teachers handled student discipline problems, demeaning remarks about students' lack of academic success, and aggressive references to hopelessly uncooperative students. Swapping "war stories" among teachers is also noted in Levy's (1970) study of a low-SES school, but teacher conversations there also centered around daily poker games, politics, sports, and the latest trends in clothing and movies.

It is here that the disjuncture between professed and operational goals in the ineffective urban school becomes most apparent because

the school's day-to-day activity reveals what it is actually trying to accomplish. The significance of nonproductive conversational exchange for inner-city schools may be its reinforcement of disengaged teacher behavior and its legitimation of ineffective—if not outright deleterious—work with students. That is, non-task-related interaction may provide teachers with a basis for social support and recognition for acts of nonteaching. Organizational theorists describe this occurrence as goal displacement: instead of instructional effectiveness, professional respect is earned through the effective use of force (Levy 1970; Willower and Jones 1963).

Effective urban schools are far less likely to be isolated work settings for teachers. Instead they are usually places of intellectual sharing, collaborative planning, and collegial work. Staff interaction is characterized as task focused, cooperative, and frequent (Armor et al. 1976; CSDE 1980; Phi Delta Kappa 1980; Rutter et al. 1979; Sizemore et al. 1983; Venezky and Winfield 1979; Wynne 1980). Little's (1982) ethnographic study of desegregated elementary schools provides a particularly cogent example. Successful schools were distinguished from less successful schools by patterned norms of collegiality among staff. Underlying collaborative norms is the expectation that teaching is a collective rather than an individual undertaking. When compared to teachers in less successful schools, teachers in effective schools interacted to a greater extent on the basis of professional concerns rather than social chatter, did so with greater frequency, and with a greater number of colleagues. Interaction opportunities occurred in training sessions, faculty meetings, teachers' lounges, hallways, and classrooms. Teachers focused efforts to improve on specific teaching practices rather than on particular individuals' behavior.

Bishop's (1977) 24-school study of elementary teachers' informal relations also helps clarify the pivotal position that colleagues occupy in the acquisition of norms. Comparing reciprocal associations in isolated and collaborative school settings, Bishop found that the majority of informal associations in isolated settings were primarily friendship based, whereas in collaborative schools, they were both friendship and instruction based. In isolated settings, teachers did not involve their friends in work-related discussion, but under collaborative conditions, friendship and work tended to overlap. As in the Little study, collaborative schools showed more extensive patterns of mutual association than isolated schools, indicating greater faculty cohesiveness.

The idea that schools stressing norms of collegiality have more constructive patterns of faculty interaction is supported by two additional studies. Glidewell et al. (1983) found that the frequency of teachers' requests for and offers of assistance was related inversely to experience

swapping, and that in schools stressing collaborative norms, there was far greater incidence of mutual problem solving. Further, in Bridges and Hallinan's (1978) sample of teachers within 57 California elementary schools, the extent of collaboration explained more than half the variance in work-relevant communication.

Deferring discussion of the benefits that accrue to teachers with positive collegial relations, it is instructive here to note the significance of frequent task-focused interaction for the development of school goals. If reality is constructed socially through recurrent patterns of interaction, it follows that greater consensus on school goals emerges from increased task-related interaction among organizational participants (see also March and Simon 1958). It has been seen that isolated teaching conditions that characterize less successful schools constrain constructive communication, whereas the collaborative arrangements of more effective schools enhance it. Frequent conversation about instructional practices and how to improve them, then, increases the likelihood that student achievement will be viewed as a highly salient aspect of school life.

Further, as noted above, greater task-related interaction leads to greater faculty cohesiveness (see, e.g., Bridges and Hallinan 1978). The importance of cohesiveness to goal consensus, it seems, is its implied power of collective perception. Cohesiveness among staff members acts to tighten the system of feedback to individuals and presses them toward internalization of goals. That is, as different sources of feedback within the school move toward congruence, the power of peers' collective perceptions produces compelling reasons for that reality to be internalized. Drawing similar conclusions, Wynne (1980) found reluctance to accept group goals revealed through interaction among staff members. In these conversations, malefactors were subject to powerful sanctions of group disapproval, which ultimately forced either compliance or departure. Thus, the individual's acceptance of group goals is in large measure determined by the strength of group cohesiveness. High group cohesiveness in effective schools directs teachers toward adopting student achievement as their primary mission.

A final noteworthy point is that teachers' adoption of norms and goals occurs over time. The longer individuals work within a school, the greater their potential for interaction, and hence the more consensual their reality of school life. Charters's (1969) study of several St. Louis high schools illustrates well the relationship between interaction patterns and staff stability. Where schools had high continuity of personnel from the end of one academic year to the beginning of the next, virtually no changes in communication patterns occurred. However, where schools experienced high faculty turnover from spring to fall,

massive disruption of staff interaction occurred, both in the saturation and frequency of contacts. Staff stability, then, is a necessary condition for continuous collegial exchange and, therefore, for the development of consensus about school life.

Principal Behavior and Staff Mobilization

Norms of collegiality do not simply happen. They do not spring spontaneously out of teachers' mutual respect and concern for each other. Rather, they are carefully engineered by structuring the workplace with frequent exposure to contact and frequent opportunities for interaction. It is clearly a "try it you'll like it" proposition. Such social engineering in successful schools is the most likely product of direct principal intervention. At some schools, time is set aside by principals for meetings among faculty where joint planning and problem solving occur (Coulson 1977; CSDE 1980; Glenn and McLean 1981; Phi Delta Kappa 1980; Sizemore et al. 1983; Wilson and Corbett 1983). At other schools, principals build interaction opportunities into in-service programs (Armor et al. 1976; Hunter 1979; Phi Delta Kappa 1980), or formally establish subgroups of faculty who are charged with particular technical responsibilities (Sizemore et al. 1983; Wilson and Corbett 1983; Wynne 1980).

That communication patterns among staff members of effective schools initially depend upon principal directives is clearly demonstrated in Charters's (1969) study. Following high spring turnover in the faculty of one exemplary high school, communication patterns the following fall became centralized around an administrative cadre who served as connecting linkages. Although spring patterns showed that administrators acted as communication intermediaries for only 45 percent of the faculty, by fall it had escalated to over 80 percent.

Collegial norms thus provide further evidence of principals' deliberate action to reduce uncertainty about teachers' academic success with students and to increase consensus about the importance and capability of doing so. Through norms of collegiality, principals wield the power of peers' collective perception.

Teacher Evaluation

Psychic earnings of teaching depend to no small extent on demonstrable proof that students have learned. Yet many teachers indicate difficulty in knowing precisely how well they are doing (Ashton et al. 1983;

Glidewell et al. 1983; Lortie 1975). Ambiguity in role performance in loosely coupled schools at the least springs from two sources: the absence of clear guidelines about what teachers are to emphasize, and the absence of clear criteria by which teachers are to be monitored and evaluated.

Ineffective inner-city principals, uncertain that their action will produce any desirable effect, appear to muster little effort to resolve this ambiguity for teachers (see, e.g., CSDE 1980; Levy 1970; Morris et al. 1981; Natriello 1984). Affirming this point is an NEA survey in which fewer than 50 percent of the randomly sampled principals reported sufficient time for the accurate assessment of teachers (Dreeben 1970). In fact, 33 percent of the tenured teachers and 19 percent of the probationary teachers reported no classroom observation at all (Dreeben 1970; see also Dornbusch and Scott 1975; Natriello 1984). An even gloomier picture of teacher evaluation is painted by Natriello and Dornbusch (1980–81). In their sample, teachers reported receiving formal evaluations from their supervisors only once in every three years. Commented one teacher, "If I were to drop dead, the only way they could find out would be the smell after a few days" (Natriello and Dornbusch 1980–81).

Of equal concern to teachers in the management of uncertainty is the criteria used for evaluation. Other NEA surveys (Weisenstein 1976) reveal that in evaluating teachers, principals periodically (although seldom regularly) fill out checklists of impressions of a teacher's mastery of certain characteristics or skills (e.g., personal appearance, lesson planning, speaking voice, classroom control). Such evaluations may include subjective rating systems and criteria with no known empirical connection to student achievement. Raters from differing perspectives may record quite different responses, and observations of varying frequency and length are likely to produce quite different perceptions. Where one principal sees tedious repetition, another may see proper overlearning and pacing.

Teachers who report being unaware of the criteria used to evaluate them are strongly dissatisfied—a condition that characterized about half the teachers in Natriello and Dornbusch's study. In discussing their findings, Natriello and Dornbusch note that teachers who are unaware of the standards used to evaluate them are in no position to redirect their energies toward improvement. Reinforcing this point is their striking finding that receipt of negative evaluation is unrelated to teacher satisfaction. Clearly, then, teachers who believe that their principals see them regularly and base evaluations on shared criteria find inspiration for improvement regardless of the sentiment expressed.

In stark contrast to schools where teacher uncertainty arises from infrequent, unclear supervision (if, indeed, any supervision at all), principals or their administrative assistants in effective schools are ubiquitous in their efforts to monitor classroom affairs (Armor et al. 1976; Brookover et al. 1979; CSDE 1980; Coulson 1977; Phi Delta Kappa 1980; Rutter et al. 1979; Sizemore et al. 1983; Wellisch et al. 1978) and student achievement within them (CSDE 1980; Glenn and McLean 1981; Phi Delta Kappa 1980; Sizemore et al. 1983; Spartz et al. 1977; Venezky and Winfield 1979; Weber 1971; Wynne 1980). In response to limited progress, additional assistance (in terms of support help) is often dispatched to needy classrooms (Armor et al. 1976; CSDE 1980; Phi Delta Kappa 1980; Rutter et al. 1979; Sizemore et al. 1983; Venezky and Winfield 1979; Weber 1971).

When regular observations of teachers are made, skill development results. In a longitudinal study of beginning elementary teachers, Turner (1965) found that greater skill acquisition by teachers in both reading and arithmetic instruction was primarily a function of the amount of supervision received. Teachers who report frequent evaluations by their principals believe them better able to judge the quality of their work (Natriello and Dornbusch 1980–81) and more helpful in teachers' skill acquisition (Natriello 1984). In turn, frequency of evaluation is correlated quite strongly with teacher satisfaction (Azumi and Madhere 1983; Chapman and Lowther 1982; Dornbusch and Scott 1975; Natriello and Dornbusch 1980–81).

In addition to teachers' professional development, active monitoring in the effective school serves several vital functions. First, it serves as a continuous academic signal to organizational participants about the priorities of the school and the importance of their individual contributions in achieving them. Second, it provides a clear basis for organizational decision making within the school. Third, it establishes standards for knowing when goal attainment has been reached. Fourth, it informs all who work within the school precisely what constitutes acceptable performance.

The interactions within one effective school described in the Phi Delta Kappa study (1980, chapter 2) are illustrative. The principal called initial meetings with small groups of teachers at each grade level to discuss and formulate specific instructional objectives and how to meet them. As a result, 85 percent of the faculty reported knowing exactly what was expected of them, and 100 percent felt that additional help was available if needed. In subsequent meetings held with the entire faculty, achievement test scores were analyzed in an effort to diagnose reasons for any lack of academic progress.

Azumi and Madhere's (1983) study of 52 urban elementary schools provides additional insight into the interrelationships of teacher evaluation, certainty about professional practice, and student achievement. Path analysis revealed that frequency of observational feedback from administrators or colleagues combined with teacher certainty to account for 30 percent of the variation in student achievement between schools, holding constant school SES, teacher absenteeism, and teacher experience. In turn, feedback accounted for 27 percent of the variance in teacher certainty. The greater the amount of feedback, the greater teachers' certainty that they could bring about improved student achievement.

Clearly, the feedback mechanism of the effective school causes organizational participants far less suffering at the hands of uncertainty. Obtaining information on the outputs of teaching, comparing those outputs against the standards prescribed by goals, detecting significant departures from the standards, and issuing technical assistance and directives back to the technical core to improve on the quality of outputs suggest a taut system where teacher uncertainty is minimized.

Buffering the Technical Core

In their quest for ways to accrue intrinsic rewards, teachers often indict classroom or school managerial tasks as an almost overwhelming handicap (Bredeson et al. 1983). Lortie (1975), for instance, found that the most frequently cited irritants to teachers in their push for greater productivity involved "down time" where teachers were pulled off task to attend to some relatively trivial administrative matter.

Not surprisingly, interruptions to the flow of teaching occur more frequently in some schools than in others. In the unsuccessful urban school studied by Levy, for example, teachers were barraged with so much paperwork, it appeared that collecting data was "the school's only task and the teachers' only duty" (Levy 1970, p. 112). When asked, teachers invariably voice the opinion that the primary function of nonteaching school personnel should be to remove obstacles that stand in the way of their teaching (Leacock 1969; Lortie 1975).

Studies linking engaged time to student learning (e.g., Stallings 1980) bear out the importance of this intuitively reasonable proposition. Organizational theorists also confirm its wisdom. Managers, who have the greatest stake in the survival of an organization, attempt to "buffer" the technical core to reduce external uncertainty and hence augment the possibilities for rational action (Thompson 1967). That is, organizational buffering occurs in an effort to reduce to a minimum the

extraneous forces that may upset the pursuit of operational goals. It is important to note, however, that buffering occurs most frequently and with the greatest success where there is clear understanding of the cause-effect relationship between goals and means to reach them (Thompson 1967). In other words, protecting the technical core of an organization only makes sense where there is certainty that particular actions (i.e., teaching) produce the desired outcome (i.e., learning).

If the presence of buffering strategies depends in large measure on the absence of uncertainty, it comes as no surprise to learn that teachers in effective schools are buffered by administrators to a far greater extent than teachers in ineffective schools. In effective schools, for example, principals attend to the material requirements and organization of instructional programs (Armor et al. 1976; Hunter 1979; Phi Delta Kappa 1980; Sizemore et al. 1983; Spartz et al. 1977; Venezky and Winfield 1979; Wellisch et al. 1978), provide clerical assistance for routine paperwork (Rutter et al. 1979), and mobilize outside resources to assist teachers with nonteaching tasks (Hunter 1979; Phi Delta Kappa 1980; Venezky and Winfield 1979).

Effective principals also buffer teachers' time. Classroom time is protected from frequent interruptions such as loudspeaker announcements (Stallings 1980; Fisher et al. 1980), school assemblies (Rutter et al. 1979), and other low-priority, intrusive events (Armor et al. 1976; Glenn and McLean 1981; Sizemore et al. 1983). Given the positive relationship between engaged time and learning, there is clear logic behind this buffering strategy: committing a larger portion of the school day to uninterrupted teaching increases the certainty of higher student achievement (Coleman et al. 1982; Rutter et al. 1979). Although it seems obvious that teachers burdened by insufficient resources cannot function effectively, the apparent lack of attention to these administrative details by ineffective principals (Armor et al. 1976; Rutter et al. 1979; Venezky and Winfield 1979) again denotes the absence of certainty about teachers' capacity to help students learn.

Still another buffering strategy employed by effective principals provides order through formalization. Formalization is said to exist where rules and procedures are specified to handle most behavioral contingencies. Teachers act in certain ways because there is clear delineation of tasks among staff members (Armor et al. 1976; Sizemore et al. 1983; Wellisch et al. 1978). Formalization, then, predates any technical activity in order of priority and ensures (to the extent that rules are enforced consistently) the orderly behavior of organizational participants.

With respect to student discipline policies and practices, effective urban principals set clear expectations in the form of rules, directives,

and specification of penalties (Brookover et al. 1979; Rutter et al. 1979; Sizemore et al. 1983; Weber 1971; Wynne 1980). These policies are enforced consistently throughout the school by both administrators and staff members (Morris 1982; Rutter et al. 1979; Wynne 1980). Thus, formalization provides a context in which all organizational participants know precisely how they are expected to behave.

With greater formalization, teachers experience less role strain (i.e., difficulties felt in fulfilling incompatible role obligations), as compatible and mutually reinforcing expectations coexist between organizationally demanded behavior on the one hand and personal desire for rewards on the other. Well-regulated student behavior places substantially less burden on the classroom teacher in his or her efforts to accrue psychic earnings. Quite simply, students who are orderly learn more than students who are not (Cooley and Leinhardt 1980; Fisher et al. 1980; Stallings 1980). Formalization as a buffering strategy, therefore, shows clear logic. The absence of school rules and procedures for dealing with misbehavior forces teachers to focus on disruptive students at the expense of their students' instructional time and their own psychic dividends. Not unexpectedly, role strain has been found to account for substantial variation in teacher-reported emotional exhaustion and depersonalization (Keith 1979) and is positively related to teacher absenteeism and attrition (Litt and Turk 1983).

Lest readers begin to feel too sanctimonious about the importance of formalization to the effective school, they need only confront the evidence on organizational rigidity. It is clear from this body of findings that the uncertainty of organizational participants sometimes produces overconformity and rigidity (Scott 1981). In other words, with too little certainty, organizations can seek to buffer their technical core through both excessive pressures for conformity and excessive specification of rules and regulations. However, the costs of organizational rigidity are high. Insistence on ritualistic adherence to school rules may lead to strong feelings of work dissatisfaction on the part of teachers (Hoy, Tarter, and Forsyth 1978; Morris 1982), higher anxiety and tension (Miskel, Fevurly, and Stewart 1979), goal displacement (Willower and Jones 1963), and greater feelings of powerlessness (Cox and Wood 1980). Particularly when increased formalization threatens technical autonomy, reductions in teacher effectiveness may result (CSDE 1980; Coates and Thoresen 1978).

It is precisely at this point that schools face a critical dilemma (Scott 1981). If they allow too much freedom for their faculty members, they are apt to confront erratic and sometimes organizationally irrelevant behavior. If they allow too little freedom for their faculty members, they are likely to produce oppressed, alienated, or bureaucratic teachers

who are equally unproductive. Effective schools, as shall be seen next, solve the predicament by high formalization at the managerial level coupled with low formalization at the technical level.

Participation in Decision Making

Frequently implicated in the success of effective schools, and another mechanism by which goal consensus is achieved, is administrative-staff joint participation in technical decision making—that is, selecting instructional material, determining appropriate instructional methods and techniques, establishing general instructional policies, and so forth (Armor et al. 1976; CSDE 1980; Glenn and McLean 1981; Rutter et al. 1979; Wynne 1980; Wellisch et al. 1978; Phi Delta Kappa 1980). Teachers' willingness to participate in technical decision making denotes adoption of school goals. Of equal importance, technical decisions appear to be the content over which colleagues in effective schools interact.

Decision making and teacher performance.—For competent teachers, in work tied directly to students, the press toward commitment of added effort always moves in the direction of psychic rewards (Lortie 1975; Stark et al. 1980). High levels of contribution are made willingly if teachers are certain the expenditure will result in demonstrable classroom benefits. Not surprisingly, effective schools identified in several studies (Armor et al. 1976; CSDE 1980; Glenn and McLean 1981; Hunter 1979; Phi Delta Kappa 1980; Weber 1971) were those that encouraged teachers to adapt or modify schoolwide instructional programs on an individual classroom basis. Indeed, in the most effective school studied by Sizemore et al. (1983), the principal bucked district office policy so that teachers could use materials they found most effective. Not unexpectedly, in all of these studies the increased pertinence of instructional programs to students' particular needs resulted in greater skill acquisition overall.

The performance benefits of collective decision making may result from the deliberate evaluation, suggestions, discussion, and modifications that are necessary to improve the quality of academic programs. These in turn lead to increased teacher clarity about instructional purpose and method and, in the end, to increased instructional effectiveness. Decisions become conscious, well-reasoned choices rather than arbitrary or automatic reactions. Studies of teacher role ambiguity support this notion. Mohrman, Cooke, and Mohrman (1979), in a study of 460 Midwestern elementary and high school teachers, found that those who participated in technical decision making also experienced less

role ambiguity. Reduced role ambiguity in turn reduced uncertainty and increased extrinsic satisfaction in role relations with superiors (see also Keith 1979; Schwab and Iwanicki 1982). Azumi and Madhere's (1983) data also show that teachers who have less input in the setting of instructional policy have greater uncertainty about their capacity to bring about improvements in student performance. The products of uncertainty, of course, weigh heavily on the acquisition of teaching rewards.

Decision making and ownership.—At the symbolic level, participation in technical decision making increases teachers' sense of ownership of school instructional goals and buys them a stake in the future of a collective enterprise. Ownership of school programs, therefore, seems critical for two reasons. First, student achievement suffers at the hands of teachers who are not committed to the program they are teaching (CSDE 1980; McLaughlin and Marsh 1978). Second, ownership on a collective basis permits administrative coordination of schoolwide instructional programs, a characteristic frequently cited in the distinction between effective and ineffective schools (CSDE 1980; Glenn and McLean 1981; Hunter 1979; Sizemore et al. 1983; Venezky and Winfield 1979; Weber 1971).

On the latter point, continual student progress is less assured in the absence of a well-articulated instructional program. In poorly coordinated programs, teachers may be reluctant to pace students by their rate of skill acquisition if the new material to be learned infringes territorially on the domain of succeeding grade levels. Moreover, student learning tends to be fragmented from one grade level to the next if curricular materials do not build serially in ever-widening understanding of important skills and concepts.

It is important to note that the articulation of classrooms into coherent, schoolwide programs implies a process of continual development resulting from, and enabled by, the commitment of a stable staff of administrators and teachers. The most effective inner-city schools studied by Venezky and Winfield (1979) and by Weber (1971) had developed their reading programs over a three- to nine-year period. Further, although several years are required to effectively "debug" a curriculum, most schools change basic instructional packages at least once every four years or have several different programs operating simultaneously (Venezky and Winfield 1979). Teachers may be reluctant to contribute personal resources if a program is replaced frequently, or if their own continued commitment to the school is in question.

In review, teacher participation in technical decision making is the stuff of collegial interaction. Participation implies a commitment to school-based instructional programs, better curriculum development

through the adaptation of curricular material to specific classroom needs, and increased student learning resulting from greater teacher effectiveness. This causal model helps explain findings that the absence of participation in technical decision making is related to high teacher absenteeism (Azumi and Madhere 1983) and defection (Chapman and Hutcheson 1982).

Learning to Teach (and to Teach Better)

Preceding pages have described how the effective principal's buffering of technical core activities reduces the degree of uncertainty confronting teachers and thus enhances their capacity for rational planning and action. It has also been noted that uncertainty for teachers is greatly diminished by the formative feedback system that effective administrators use and by high access to collegial advice and expertise. However, as harmful as uncertainty is to rational action, there is an equally dangerous outcome of too much certainty. Where organizational participants program themselves out of challenging and new situations, there is a tendency to become bored and lose interest. Thus, a central challenge confronting all effective schools is to find levels that are just right in their balance between security and stimulation (Scott 1981).

Effective schools meet this challenge through a combination of formal and informal mechanisms that define "good teaching," accentuate the importance of ongoing skill acquisition, define the standards by which teachers measure success in teaching, signal the need to develop new teaching skills, and provide ways to learn and improve. However, clearer meaning can be given to norms that stress continual improvement by returning to the earlier distinction between isolated and collegial settings, for nowhere is the contrast between ineffective and effective schools more profound than in the process of learning to teach.

Although teachers vary in academic and experiential preparation prior to service, neophytes in any type of school usually feel wholly unprepared for the realities they encounter with their first class of students (Coates and Thoresen 1978; Fuller 1969; Leacock 1969; McArthur 1978; Purcell and Seifert 1982). Indeed, when experienced teachers look back upon their formal preservice training, the majority of them remember their education course work as too theoretical and not sufficiently practical (Dreeben 1970; Lortie 1975).

"Reality shock" may describe the experiences of new entrants, as idealism and romanticism give way to understanding that before one can teach students anything, it is necessary for them to be attentive (McArthur 1978). Learning to manage student behavior is the first important task of teaching neophytes. Moreover, as noted earlier,

control of student behavior is a central element in the social system of the school and, as such, is used as an early measure of the entrants' teaching potential by both the principal, fellow faculty (Leacock 1969; Warren 1975; Willower and Jones 1963), and beginners themselves (Hoy 1969; Leacock 1969). Yet classroom discipline seems to depend heavily on the establishment of orderly conditions at the school level.

Thus, the acquisition of skills related to teaching, the type of skills that one acquires, and the extent of one's potential skill development all depend in large measure on the school's prevailing norms and patterns of interaction. Within isolated settings, strong norms of autonomy militate against requests for and offers of assistance among colleagues, in part because both are perceived as statements about relative status (Lortie 1975). In the Glidewell et al. study (1983), for example, teachers' commitment to the norm of autonomy operated to (*a*) reduce their perceived need for advice and support, and (*b*) mitigate against requesting and offering advice, even in settings such as teacher centers that were established for precisely those purposes.

Trial-and-Error Learning

With norms of autonomy mediating against asking for help and with the possible risks of exposed inadequacies, the beginning teacher's skill acquisition in isolated settings is limited almost entirely to trial-and-error learning. Not unexpectedly, two-thirds of Lortie's (1975) Five Towns sample reported that experience was their major means of learning to teach (see also Leacock 1969).

However, a number of problems arise for neophytes who rely almost exclusively on trial-and-error learning (Lortie 1975). First, they are limited in their possibilities for success by their own personal ability to discern problems, develop alternative solutions, choose among them, and assess outcomes. Second, in selecting standards of teaching excellence toward which to strive, neophytes typically fall back upon recollections of former teachers from their own student days, rather than seeking models of excellence among their colleagues. Third, the absence of a consensually developed technology of teaching in the isolated setting limits the neophyte's likelihood of learning any preexisting body of practical knowledge. Without such knowledge, beginners are less able to perceive and interpret daily events and critical transactions, which might be easily understood if they had access to an already developed discourse (Lortie 1975). Each teacher, then, must construct for him/herself anew a conception of professional excellence and a manner in which to attain it.

Without benefit of positive collegial exchange or administrative support and feedback, and with strong external pressure from peers and principal pushing custodial control of students, beginning teachers in isolated work settings either defect (Bredeson et al. 1983; Chapman and Hutcheson 1982; Dworkin 1980; Leacock 1969; Levy 1970) or move toward adopting the school's subcultural values (Leacock 1969; Paschal and Treloar 1979; Willower and Jones 1963). More liberal and permissive views, which stress the importance of each student's individuality and the development of a classroom climate geared to meeting a wide range of student needs, give way—usually within the first year—to a custodial view, where the maintenance of order is stressed, students are distrusted, and a punitive, moralistic orientation toward control predominates (Ashton et al. 1983; Day 1959; Hoy 1969; Leacock 1969; Levy 1970). It is the rare teacher who keeps faith with his or her ideals when those surrounding him or her advise otherwise.

Subsequent skill mastery of teachers in isolated settings appears equally constrained by norms about the scope and nature of collegial interaction. In the urban elementary school that Warren (1975) studied, for example, the reading specialist was instructed by the principal to wait for an invitation from teachers to demonstrate alternative methods of teaching reading. Although the waiting strategy conformed to prevailing school norms, it also produced no invitations (see also Armor et al. 1976; CSDE 1980). Thus, in isolated settings, it is highly unlikely that teachers who need the most help receive it.

In further support of this point is evidence of a curvilinear relationship between teacher experience and student achievement, with effectiveness beginning to decline after five years (Katzman 1971; McLaughlin and Marsh 1978; Murnane 1975). In other words, restricted to trial-and-error learning, there may be a ceiling effect on the individual's capacity to grow in the absence of others' professional input. This limited opportunity for skill development in turn reduces teachers' chances to acquire intrinsic rewards and is therefore a good predictor of career dissatisfaction (Chapman and Lowther 1982; Litt and Turk 1983), teacher absenteeism (Litt and Turk 1983), and teacher attrition (Bredeson et al. 1983; Chapman and Hutcheson 1982; Frataccia and Hennington 1982; Litt and Turk 1983).

Norms of Continuous Improvement

Effective schools, in contrast, promote norms of continuous improvement. Here it is assumed that improvement of teaching is a collective

rather than solo enterprise, and that analysis, evaluation, and experimentation in concert with one's colleagues set the conditions under which teachers become more effective (Little 1982). In these settings, inexperienced teachers have far less reason to cover up their mistakes from colleagues. In fact, inexperienced teachers have reason not to isolate their beginners' mistakes. For one thing, responsibilities to one's colleagues direct beginners to become as effective teachers as possible. Additionally, neophytes maximize their own rewards when they seek out the advice and assistance of others. If improvement in teaching results from collegial exchange, beginners stand to profit directly from the suggestions of others.

That the work context itself determines the degree to which inexperienced teachers engage in task-related exchange is the idea tested by Bishop (1977). Comparing inexperienced teachers from isolated and collegial settings, Bishop found that within the latter work context, beginners engaged in substantially more mutual associations on the basis of both work and of work and friendship combined. Isolated settings, on the other hand, produced more solely friendship-based associations for beginners.

The organizational setting also determined to some degree the work orientations of beginning teachers. Bishop found that while neophytes in isolated settings developed a custodial student-control ideology, new teachers in collegial settings maintained more humanistic work orientations about the importance of tending to the individual needs of students (see also Ashton et al. 1983). The emphasis in collegial settings on teachers' skill development and on school-enforced standards for student behavior may provide beginners with sufficient support to avoid becoming custodians. Thus, the organizational context of work appears to be a good predictor of the degree of "reality shock" and role conflict that beginners first suffer. These in turn affect their desire to leave or stay in the profession.

A third noteworthy finding of Bishop's study deals with the role of experience and staff stability. While the amount of task-related discussion increased with teachers' experience in collegial settings, in isolated settings there was a substantial decline in collegial exchange with experience. This curious finding (although escaping the attention of Bishop) may perhaps be explained by differences in the product of collegial exchange in different work contexts. The reader will recall the tendency of teachers in isolated settings to engage in experience swapping as a means of gaining support, whereas in collegial settings teachers more readily requested and gave advice and assistance. Thus, while the product of exchange in isolated settings is often sympathy, the product of exchange in collegial settings is often ideas. Ideas in

turn give rise to greater experimentation in collegial settings (Bishop 1977; Cohen 1981; Little 1982). Further, if experimentation in collegial settings leads to increased effectiveness, the resultant rewards will reinforce and increase task-related collegial interaction.

The importance of normative climate to teachers' ongoing professional development is also poignantly illustrated in the Glidewell et al. (1983) study. For more experienced teachers, repeated task-related interaction with colleagues increased their beliefs about the availability of professional knowledge. Teachers' beliefs that professional expertise was available from colleagues, their level of experience, and their clarity of purpose combined to account for a striking 93 percent of the variance in teachers' certainty about professional practice. Experienced teachers' continued interaction with colleagues that pivots on clear goals increases their certainty about the technology of teaching.

Of equal importance is Glidewell et al.'s finding that collegial norms and certainty about professional practice combined to account for 87 percent of the variance in need for support. That is, norms of collegiality and certainty about the technology of teaching, significantly increased teachers' need for support and requests for and offers of assistance, while norms of autonomy and uncertainty about technology of teaching greatly reduced teachers' need for support and offers/requests. In essence, teachers continue to ask for assistance from and offer assistance to colleagues when they believe it will help them improve.

Two additional studies permit a more detailed examination of the relationship between task-related collegial exchange and teachers' skill acquisition and development. Ashton et al. (1983) compared an isolated with a collaborative urban school by both surveying and observing teachers on the effective teaching behaviors identified by Good and Grouws (1977). Compared to their counterparts in the isolated setting, in the collegial setting teachers were less custodial in their treatment of lower achievers, more certain about their capacity to affect student learning, and consequently more likely to display effective teaching behaviors. Further, Griffin et al (1983), in their longitudinal study of teacher training, found that the degree of collaborative relations between cooperating and student teachers predicted increases in effective teaching behaviors on the part of both interactants.

Perhaps because of increased opportunity for skill development, faculty absenteeism is significantly less in collaborative than in isolated settings (Bridges and Hallinan 1978; Litt and Turk 1983). Reduced absenteeism in collaborative settings may also result from greater recognition by one's colleagues. In effective schools, with frequent opportunities to see, hear, or talk with others at work, better-performing colleagues are singled out for consultation. Cohen (1973) found that

in collegial work settings where teachers were given recognition for special competence, professional pride in helping younger teachers blossomed. However, in isolated work settings, professional pride among older teachers went relatively undeveloped. Teachers with leadership opportunities are more likely than their isolated counterparts to perceive themselves as influential and certain about professional practices (Ashton et al. 1983; Chapman and Lowther 1982; Cohen 1973). Further, greater recognition by colleagues seems to increase the likelihood of teachers staying in the profession (Chapman and Hutcheson 1982; Frataccia and Hennington 1982).

Implied in the operation of collegial norms is a marked increase in informal evaluations by one's peers. Although in isolated settings the evaluative judgments of organizational participants external to the classroom (i.e., principal and colleagues) are almost never used by teachers as indicators of their effectiveness (Lortie 1975), the sitution is altogether different in collaborative settings. Here, teachers feel strongly that colleagues have a right to evaluate fellow teachers, and that collegial feedback is generally sound (Cohen 1981). Indeed, experimental studies show that teachers can, with a modicum of feedback, learn effective teaching strategies with subsequent payoffs of increased student achievement (Anderson, Evertson, and Brophy 1979; Good and Grouws 1977; Stallings 1980). Thus, if collegial evaluation and feedback result in improved teacher performance, intrinsic rewards accrue to both teacher-learner and teacher-instructor.

Fruitful collegial exchange, then, recycles synergistically. Here it is seen most clearly that some organizational climates foster teachers' skill acquisition and development more than others. Collegial norms represent a form of group problem solving, social support, and ongoing professional development. As new ideas are infused into the network, alternative and better solutions to classroom problems are found. In essence, good teachers working with other good teachers get even better.

It is therefore my sense that effective teachers are "made" rather than "born"; that they develop, perfect, and add to their fund of teaching skills throughout their professional careers; and that their continual skill acquisition and development is a necessary precondition to survival in the profession without frustration, dissatisfaction, and burnout.

A Caution about, and Summary of, the Analysis

Before reviewing the school-level processes that govern and shape teacher behavior, an important caution seems warranted. The char-

acteristics of effective elementary schools serving poor minority students may not generalize to other school populations or even to higher grade levels. The phenomenon of tight coupling may, in fact, be a direct function of the specific population and grade levels served (see, e.g., Firestone and Wilson 1984). For one thing, basic skill acquisition is the curricular province of the elementary school. Elementary teachers, unlike their secondary counterparts, are trained to accept this responsibility, and curricular materials have been designed with this function in mind. That the urban poor experience difficulty in basic skill acquisition at the elementary level may underscore both the importance of this knowledge as a schoolwide goal and the appropriate pride in reaching it (see Lortie 1975; Plihal 1982). In contrast, middleclass elementary schools may experience far less difficulty with students' basic skill acquisition and so may develop less specific goals. Even desegregated elementary schools, with the problems and goals of positive interracial interaction, have more diversified objectives than schools serving primarily low-income black youngsters. Goals of competing importance decrease the likelihood that consensus about their priority will develop. Principal and teacher behavior then become less unitary in purpose. Similarly, the emphasis placed on disciplinary standards in the effective urban school may be seen as a rational response to a problem perhaps not experienced to the same extent by middle-class schools. Because faculty in more middle-class schools may not be mobilized in common purpose, then, there may be less internal connectedness. Mindful that effective school findings may be conditionalized by characteristics of the clientele served, a schematic representation of critical school processes is offered in figure 1.

In explaining school success, I place heavy emphasis on the ideas of certainty and organizational goals. School excellence lies in the direction of rational planning and action where principals, because of their certainty that it can be done, mobilize teachers against a single common enemy: low student achievement. To combat low basic-skill acquisition, effective principals arm their schools with common objectives
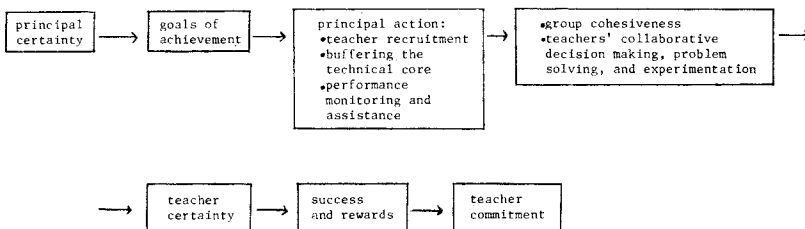

FIG. 1.—Explaining school success

toward which to collectively aim, with full command of teaching strategies developed through collaborative efforts, with maximum time, materials, and technical assistance to implement them, and with professional confidence that the culprit of school failure can and should be defeated. With common objectives come clear directions toward which teachers point their energies for improvement, shared reason for professional dialogue among teachers, a basis for knowing when their efforts have succeeded, and collectively issued recognition for progress made.

What sets the effective inner-city school apart from others is, first, that personal motives held by members of the staff are congruent with the goals of the organization. Induction into teaching in the effective school sets the conditions under which goal consensus is achieved and decides the means to reach them. Second, common beliefs or values carry the weight of organizational authority and control. Since values represent group consensus as well as personal commitment, there is a binding—if not moral—aspect to them that forms the basis of social control and that reduces the possibility of opportunistic behavior (Scott 1981). That is, actions that contribute to the attainment of goals are the essential things of value, and, as such, form the basis for solidarity and legitimacy within the school community. Finally, as a product of actions to attain goals such as performance auditing and problem solving, efficacious technologies develop. The technology of teaching that is passed along to new recruits then circles back to provide organizational participants with inducements on the one hand and contributions on the other.

Note

References

Anderson, Barry, and Jonathan Mark. "Teacher Mobility and Productivity in a Metropolitan Area—a Seven-Year-Old Study." *Urban Education* 12 (1977): 15–36.

Anderson, Linda, Caroline Evertson, and Jere Brophy. "An Experimental Study of Effective Teaching in First-Grade Reading Groups." *Elementary School Journal* 79 (1979): 193–223.

Armor, David J., Patricia Conry-Oseguera, Millicent Cox, Nicelma King, Lorraine McDonnell, Anthony Pascal, Edward Pauly, and Gail Zellman. *Analysis of the School Preferred Reading Program in Selected Los Angeles Minority Schools.* Santa Monica, Calif.: Rand Corp., 1976.

Ashton, Patricia T., Rodman B. Webb, and Nancy Doda. *A Study of Teachers' Sense of Efficacy: Final Report.* Gainesville: University of Florida, Foundations of Education, 1983.

Azumi, Jann E., and Serge Madhere. "Professionalism, Power and Performance: The Relationships between Administrative Control, Teacher Conformity, and Student Achievement." Paper presented at the annual meeting of the American Educational Research Association, Montreal, April 1983.

Becker, Howard. "The Career of the Chicago Public School Teacher." *American Journal of Sociology* 57 (1952): 470–77. (*a*)

Becker, Howard. "Social Class Variations in the Teacher-Pupil Relationship." *Journal of Educational Sociology* 25 (1952): 451–65. (*b*)

Bishop, James M. "Organizational Influences on the Work Orientations of Elementary Teachers." *Sociology of Work and Occupation* 4, no. 2 (1977): 171–208.

Blust, Ross S., and Richard Dumaresq. "The Impact of Integrative Planned Change Strategies on School Climate Factors." Paper presented at the annual meeting of the American Educational Research Association, Montreal, April 1983.

Breckenridge, Eileen. "Improving School Climate." *Phi Delta Kappan* 58 (1976): 314–18.

Bredeson, Paul V., Marvin J. Fruth, and Katherine L. Kasten. "Organizational Incentives and Secondary School Teaching." *Journal of Research and Development in Education* 16 (1983): 52–56.

Bridges, Edwin M., and Maureen T. Hallinan. "Subunit Size, Work System Interdependence, and Employee Absenteeism." *Educational Administration Quarterly* 14, no. 2 (1978): 24–42.

Brookover, Wilbur, Charles Beady, Patricia Flood, John Schweitzer, and Joe Wisenbaker. *School Social Systems and Student Achievement: Schools Can Make a Difference.* New York: Praeger Publishers, 1979.

Bruno, James E. "Morale-affecting Stressors: An Analysis of Black, White, and Hispanic Elementary Schools." *Urban Education* 16 (1981): 175–203.

Bruno, James E., and Mary Lynn Doscher. "Contributing to the Harms of Racial Isolation: Analysis of Requests for Teacher Transfer in a Large Urban School District." *Educational Administration Quarterly* 17, no. 2 (1981): 93–108.

Burlingame, Martin. *An Analysis of Attrition in the Downstate Illinois Teaching Force, 1972–73 to 1977–78.* Springfield: Illinois State Board of Education, 1980.

California State Department of Education (CSDE). *Report on the Special Studies of Selected ECE Schools with Increasing and Decreasing Reading Scores.* Sacramento, Calif.: Office of Program Evaluation and Research, 1980.

Chapman, David W. "Teacher Retention: The Test of a Model." *American Educational Research Journal* 21, no. 3 (1984): 645–58.

Chapman, David W., and Sigrid M. Hutcheson. "Attrition from Teaching Careers: A Discriminant Analysis." *American Educational Research Journal* 19 (1982): 93–106.

Chapman, David W., and Malcolm A. Lowther. "Teachers' Satisfaction with Teaching." *Journal of Educational Research* 75, no. 4 (1982): 240–47.

Charters, W. W., Jr. "Stability and Change in the Communication Structure of School Faculties." *Educational Administration Quarterly* 5, no. 3 (1969): 15–38.

Charters, W. W., Jr. "Some Factors Affecting Teacher Survival in School Districts." *American Educational Research Journal* 7 (1970): 1–22.

Clark, Peter B., and James Q. Wilson. "Incentive Systems: A Theory of Organizations." *Administrative Science Quarterly* 6 (1961): 129–66.

Clark, Terry A., and Dennis P. McCarthy. "School Improvement in New York City: The Evolution of a Project." *Educational Researcher* 12 (1983): 17–24.

Coates, Thomas J., and Carl E. Thoresen. "Teacher Anxiety: A Review with Recommendations." *Review of Educational Research* 46 (1978): 159–84.

Cohen, Elizabeth G. "Open-spaced Schools: The Opportunity to Become Ambitious." *Sociology of Education* 46 (1973): 143–61.

Cohen, Elizabeth G. "Sociology Looks at Team Teaching." *Research in Sociology of Education and Socialization* 2 (1981): 163–93.

Coleman, James S., Thomas Hoffer, and Sally Kilgore. *Public and Private Schools* (draft). Chicago: National Opinion Research Center, University of Chicago, 1982.

Cooley, William W., and Gaea Leinhardt. "The Instructional Dimensions Study." *Educational Evaluation and Policy Analysis* 2, no. 1 (1980): 7–25.

Coulson, John E. *Overview of the National Evaluation of the Emergency School Aid Act.* Santa Monica, Calif.: System Development Corp., 1977.

Cox, Harold, and James R. Wood. "Organizational Structure and Professional Alienation: The Case of Public School Teachers." *Peabody Journal of Education* 58, no. 1 (1980): 1–6.

Cuban, Larry. "Effective Schools: A Friendly but Cautionary Note." *Phi Delta Kappan* 9 (1983): 695–96.

Davidson, Helen H., and Gerhard Lang. "Children's Perceptions of Their Teacher's Feelings toward Them Related to Self-Perception, School Achievement and Behavior." *Journal of Experimental Education* 29 (1960): 107–18.

Day, Harry P. "Attitude Change of Beginning Teachers after Initial Teaching Experience." *Journal of Teacher Education* 10 (1959): 326–28.

Dornbusch, Sanford M., and W. Richard Scott. *Evaluation and the Exercise of Authority.* San Francisco, Calif.: Jossey-Bass Publishers, 1975.

Dreeben, Robert. *The Nature of Teaching.* Glenview, Ill.: Scott, Foresman & Co., 1970.

Dworkin, Anthony G. "The Changing Demography of Public School Teachers: Some Implications for Faculty Turnover in Urban Areas." *Sociology of Education* 53 (1980): 65–73.

Edmonds, Ronald R., and John R. Frederiksen. *Search for Effective Schools: The Identification and Analysis of City Schools That Are Instructionally Effective for Poor Children.* East Lansing: Michigan State University, Institute for Research on Teaching, 1979.

Firestone, William A., and Bruce L. Wilson. *Using Bureaucratic and Cultural Linkages to Improve Instruction: The High School Principal's Contribution.* Eugene: University of Oregon, Center for Educational Policy and Management, 1984.

Fisher, Charles W., David C. Berliner, Nikola N. Filby, Richard Marliane, Leonard S. Cahan, and Marilyn M. Dishaw. "Teaching Behaviors, Academic Learning Time, and Student Achievement: An Overview." In *Time to Learn*, edited by C. Denham and Ann Lieberman. Washington, D.C.: Department of Education, 1980.

Frataccia, Enrico V., and Iris Hennington. "Satisfaction of Hygiene and Motivation Needs of Teachers Who Resigned from Teaching." Paper presented

at the annual meeting of the Southwest Educational Research Association, Austin, Tex., 1982.

Fuller, Frances F. "Concerns of Teachers: A Developmental Conceptualization." *American Educational Research Journal* 6 (1969): 207–26.

Glenn, Beverly C., and Taylor McLean. *What Works? An Examination of Effective Schools for Poor Black Children*. Cambridge, Mass.: Harvard University, Center for Law and Education, 1981.

Glidewell, John C., S. Tucker, M. Todt, and S. Cox. "Professional Support Systems: The Teaching Profession." In *Applied Research in Help-seeking and Reactions to Aid*, edited by A. Madler, J. D. Fisher, and B. M. DePaulo. New York: Academic Press, 1983.

Good, Thomas, and David Grouws. "Teaching Effects: A Process-Product Study in Fourth-grade Mathematics Classrooms." *Journal of Teacher Education* 28 (1977): 49–54.

Greenberg, David, and John McCall. "Teacher Mobility and Allocation." *Journal of Human Resources* 9 (1974): 480–502.

Griffin, Gary A., S. Barnes, R. Hughes, S. O'Neal, M. E. Defino, S. A. Edwards, and H. Hukill. *Clinical Preservice Teacher Education: Final Report*. Austin: University of Texas Press, 1983.

Griffiths, Daniel E., Susan Goldman, and William J. McFarland. "Teacher Mobility in New York City." *Educational Administration Quarterly* 1, no. 1 (1965): 15–31.

Hoy, Wayne K. "Pupil Control Ideology and Organizational Socialization: A Further Examination of the Influence of Experience on the Beginning Teacher." *School Review* 77 (1969): 257–65.

Hoy, Wayne K., C. J. Tarter, and Patrick Forsyth. "Administrative Behavior and Subordinate Loyalty: An Empirical Assessment." *Journal of Educational Administration* 16, no. 1 (1978): 29–38.

Hunter, M. G. *Final Report of the Michigan Cost-Effectiveness Study*. East Lansing: Michigan Department of Education, 1979.

Katzman, Michael T. *The Political Economy of Urban Schools*. Cambridge, Mass.: Harvard University Press, 1971.

Keith, Pat M. "Correlates of Role Strain in the Classroom." *Urban Education* 14, no. 1 (1979): 19–30.

Landsmann, Leanna, ed. "Instructor's Survey Reveals Stress, Weight Top Concerns of Teachers Nationwide." *Instructor* 86 (1977): 12–13.

Leacock, Eleanor. *Teaching and Learning in City Schools*. New York: Basic Books, 1969.

Lee, Jackson K., and K. Wayne Pruitt. "High School Teaching: A Humiliating Profession." *The Clearing House* 53 (1979): 195–97.

Levy, Gerald E. *Ghetto School: Class Warfare in an Elementary School*. Indianapolis: Western Publishing Co., 1970.

Litt, Mark D., and Dennis C. Turk. "Stress, Dissatisfaction, and Intention to Leave Teaching in Experienced Public High School Teachers." Paper presented at the annual meeting of the American Educational Research Association, Montreal, April 1983.

Little, Judith W. "Norms of Collegiality and Experimentation: Workplace Conditions of School Success." *American Educational Research Journal* 19, no. 3 (1982): 325–40.

Lortie, Dan C. "Observations on Teaching as Work." In *Second Handbook of Research on Teaching*, edited by R. M. Travers. Chicago: Rand McNally & Co., 1973.

Lortie, Dan C. *Schoolteacher: A Sociological Study.* Chicago: University of Chicago Press, 1975.

March, James G. "American Public School Administration: A Short Analysis." *School Review* 86, no. 2 (1978): 217–50.

March, James G., and Herbert A. Simon. *Organizations.* New York: John Wiley & Sons, 1958.

McArthur, John T. "What Does Teaching Do to Teachers?" *Educational Administration Quarterly* 14, no. 3 (1978): 89–103.

McLaughlin, Milbrey W., and David D. Marsh. "Staff Development and School Change." *Teachers College Record* 80, no. 1 (1978): 69–94.

Meyer, John W., and Brian Rowan. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83 (1977): 340–63.

Miskel, Cecil G., Robert Fevurly, and John Stewart. "Organizational Structures and Processes, Perceived School Effectiveness, Loyalty, and Job Satisfaction." *Educational Administration Quarterly* 15, no. 3 (1979): 97–118.

Mohrman, Allan M., Robert A. Cooke, and Susan A. Mohrman. "Participation in Decision Making: A Multidimensional Perspective." *Educational Administration Quarterly* 15, no. 3 (1979): 97–113.

Morris, Monica B. *The Public School as Workplace: The Principal as a Key Element in Teacher Satisfaction. A Study of Schooling in the United States* (technical report series, no. 32). Dayton, Ohio: Institute for Development of Educational Activities, 1982.

Morris, Van Cleve, Robert L. Crowson, E. Hurwitz, and Cynthia Porter-Gehrie. *The Urban Principal: Discretionary Decision-making in a Large Educational Organization.* Chicago: University of Illinois at Chicago, 1981.

Murnane, Richard J. *The Impact of School Resources on the Learning of Inner City Children.* Cambridge, Mass.: Ballinger Publishing Co., 1975.

Murnane, Richard J. "Teacher Mobility Revisited." *Journal of Human Resources* 16, no. 1 (1981): 3–19.

Natriello, Gary. "Teachers' Perceptions of the Frequency of Evaluation and Assessments of Their Effort and Effectiveness." *American Educational Research Journal* 21, no. 3 (1984): 579–95.

Natriello, Gary, and Sanford M. Dornbusch. "Pitfalls in the Evaluation of Teachers by Principals." *Administrator's Notebook* 29, no. 6 (1980–81).

Owen, John D. "The Distribution of Educational Resources in Large American Cities." *Journal of Human Resources* 7 (1972): 26–38.

Paschal, Billy J., and James H. Treloar. "A Longitudinal Study of Attitude Change in Prospective and Beginning Elementary School Teachers." *Teacher Educator* 15, no. 1 (1979): 2–9.

Pedersen, K. George. "Teacher Migration and Attrition." *Administrator's Notebook* 18, no. 8 (1970): 1–13.

Perrow, Charles. "The Analysis of Goals in Complex Organizations." *American Sociological Review* 26 (1961): 854–66.

Phi Delta Kappa. *Why Do Some Urban Schools Succeed? The Phi Delta Kappa Study of Exceptional Urban Elementary Schools.* Bloomington, Ind.: Phi Delta Kappa, 1980.

Plihal, Jane. "Types of Intrinsic Rewards of Teaching and Their Relation to Teacher Characteristics and Variables in the Work Setting." Paper presented at the annual meeting of the American Educational Research Association, New York, 1982.

Purcell, Thomas D., and Bernice B. Seifert. "A Tri-State Survey of Student Teachers." *College Student Journal* 16 (1982): 27–29.

Purkey, Stewart C., and Marshall S. Smith. "Effective Schools—a Review." *Elementary School Journal* 83 (1983): 427–52.

Ralph, John, and James Fennessey. "Science or Reform: Some Questions about the Effective School Model." *Kappan* 64 (1983): 689–92.

Roberts, Joan I. *Scene of the Battle: Group Behavior in the Urban Classroom.* Garden City, N.Y.: Doubleday & Co., 1971.

Rowan, Brian, Steven T. Bossert, and David C. Dwyer. "Research on Effective Schools: A Cautionary Note." *Educational Researcher* 12, no. 4 (1983): 24–31.

Rutter, Michael, Barbara Maughan, Peter Mortimore, and Janet Ouston. *Fifteen Thousand Hours: Secondary Schools and Their Effects on Children.* Cambridge, Mass.: Harvard University Press, 1979.

Schlechty, Phillip C., and Victor S. Vance. "Recruitment, Selection, and Retention: The Shape of the Teaching Force." *Elementary School Journal* 83, no. 4 (1983): 469–87.

Schwab, Richard L., and Edward F. Iwanicki. "Perceived Role Conflict, Role Ambiguity, and Teacher Burnout." *Educational Administration Quarterly* 18, no. 1 (1982): 60–74.

Scott, W. Richard. *Organizations: Rational, National and Open Systems.* Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1981.

Sergiovanni, Thomas. "Factors Which Affect Satisfaction and Dissatisfaction of Teachers." In *The Employment of Teachers,* edited by D. Gerwin. Berkeley, Calif.: McCutchan Publishing Corp., 1974.

Sizemore, Barbara, Carlos A. Brossard, and Birney Harrigan. *An Abashing Anomaly: The High Achieving Predominantly Black Elementary School* (final report). Pittsburgh: University of Pittsburgh, 1983.

Spartz, James L., et al. *Delaware Educational Accountability System Case Studies: Elementary School Grades 1–4.* Dover: Delaware Department of Public Instruction, 1977.

Spuck, Dennis W. "Reward Structures in the Public High School." *Educational Administration Quarterly* 10 (1974): 18–34.

Stallings, Jane. "Allocated Academic Learning Time Revisited, or Beyond Time on Task." *Educational Researcher* 9, no. 11 (1980): 11–16.

Stark, Joan S., Ann E. Austin, Malcolm A. Lowther, David W. Chapman, and Sigrid M. Hutcheson. *Teacher Certification Recipients at the University of Michigan, 1946 through 1976: A 1980 Follow-up Study.* Ann Arbor: University of Michigan, 1980. (ERIC Document Reproduction Service No. ED 209 209)

Thompson, James D. *Organizations in Action.* New York: McGraw-Hill Book Co., 1967.

Turner, Richard L. "Task Performance and Teaching Skill in the Intermediate Grades." *Journal of Teacher Education* 14 (1965): 299–307.

Tye, Kenneth A., and Barbara B. Tye. "Teaching Isolation and School Reform." *Kappan* 65 (1984): 319–22.

Venezky, Richard L., and Linda F. Winfield. *Schools That Succeed Beyond Expectations in Reading* (Studies on Education Technical Report no. 1). Newark: University of Delaware, 1979.

Warren, Richard L. "Context and Isolation: The Teaching Experience in an Elementary School." *Human Organization* 35 (1975): 139–48.

Weber, George. *Inner-City Children Can Be Taught to Read: Four Successful Schools.*

Washington, D.C.: Council for Basic Education, 1971.
Weick, Karl E. "Educational Organizations as Loosely Coupled Systems." *Administrative Science Quarterly* 21 (1976): 1–19.
Weisenstein, Greg R. "Teacher Evaluation: The Principal's Role." *OSSC Bulletin* 20 (1976): 3–23.
Wellisch, Jean B., Anne H. MacQueen, Ronald A. Carriere, and Gary A. Duck. "School Management and Organization in Successful Schools." *Sociology of Education* 51 (1978): 211–26.
Willower, Donald. "Schools As Organizations: Some Illustrated Strategies for Educational Research and Practice." *Journal of Educational Administration* 7, no. 2 (1969): 110–26.
Willower, Donald J., and Ronald G. Jones. "When Pupil Control Becomes an Institutional Theme." *Phi Delta Kappan* 45 (1963): 107–09.
Wilson, Bruce L., and H. Dickson Corbett. "Organization and Change: The Effects of School Linkages on the Quantity of Implementation." *Educational Administration Quarterly* 19, no. 4 (1983): 85–104.
Wynne, Edward A. *Looking at Schools: Good, Bad and Indifferent.* Lexington, Mass.: D.C. Heath & Co., 1980.