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Designing Better Schools: The Meaning and Measure of Enabling School Structures

Wayne K. Hoy
Scott R. Sweetland

Common usage of the term bureaucracy is pejorative. To most people, bureaucracy is synonymous with red tape, rigid rules, autocratic superiors, and alienated and apathetic employees. But organizations of any size, including schools, have bureaucratic structures because they need appropriately designed formal procedures and hierarchical structures to prevent chaos and promote efficiency. Two conflicting views of the consequences of bureaucracy emerge from the literature. Some studies demonstrate that structure alienates and frustrates, whereas other research finds structure increases satisfaction and innovation. This study is consistent with an earlier attempt to reconcile these two theoretically opposing perspectives by creating and testing a new construct termed enabling structure. Evidence is mounting that schools can be designed with formalized procedures and hierarchical structures that help rather than hinder.

Like it or not, schools are bureaucracies—they are structures with hierarchy of authority, division of labor, impersonality, objective standards, technical competence, and rules and regulations (Weber, 1947). Weber (1947) claimed that bureaucracies are capable of attaining the highest degree of administrative efficiency. Yet, bureaucracies are criticized and even demonized as structures that produce overconformity and rigidities (Gouldner, 1954; Merton, 1957), block and distort communication (Blau & Scott, 1962), alienate and exploit workers (Aiken & Hage, 1968; Scott, 1998), stifle innovation (Hage & Aiken, 1970), and are unresponsive to its publics (Coleman, 1974; Scott, 1998). Moreover, feminists attack bureaucracy as a male invention that rewards such masculine virtues as competition, power, and hierarchy and eschews such feminine values as collaboration, care, and equality (Ferguson, 1984; Martin & Knopoff, in press). Administrators and teachers and school executives fault state bureaucracies for impeding and preventing

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local districts from delivering educational programs that meet community needs. What these criticisms have in common is the human frustration with unresponsive structures and unfair and rigid rules and policies.

Clearly bureaucratic structures can be detrimental to their participants and publics, but that is only half the picture. Research also shows that bureaucracies can also enhance satisfaction (Michaels, Cron, Dubinsky, & Joachimsthaler, 1988), increase innovation (Craig, 1995; Damanpour, 1991), reduce role conflict (Senatra, 1980), and lessen feelings of alienation in schools (Moeller & Charters, 1966) as well as other organizations (Jackson & Schuler, 1985). Indeed, research paints two conflicting pictures of human response to bureaucracy. The dark side reveals a bureaucracy that alienates, breeds dissatisfaction, hinders creativity, and demoralizes employees. The bright side shows a bureaucracy that guides behavior, clarifies responsibility, reduces stress, and enables individuals to feel and be more effective (Adler, 1999, Adler & Borys, 1996; Hoy & Miskel, 2001). The purposes of this study are, first, to examine the positive and negative consequences of bureaucratic school structures, then theoretically to reconcile these two contrasting views, and finally, to refine and test a new construct of school structure—*enabling bureaucracy*.

FUNDAMENTAL FEATURES OF BUREAUCRACY

Two salient aspects of bureaucratic organization are formalization (formal rules and procedures) and centralization (hierarchy of authority). We examine each property with the goal of sorting out the features that capture positive outcomes of bureaucracy while preventing negative consequences.

Formalization

Formalization is the degree to which the organization has written rules, regulations, procedures, and policies. Gouldner's (1954) classic analysis of bureaucracy advanced two types of formalization—representative and punishment centered. Adler and Borys (1996) posited a more comprehensive and contemporary theoretical analysis of formalization—enabling and coercive. They develop a deeper theoretical analysis of how work practices are affected by the features, design, and implementation of these two contrasting types of formalization. We start with their theoretical framework to build a conceptual model for analyzing bureaucratic properties in schools.

Coercive formalization more often than not generates alienation at the expense of commitment. Coercive rules and procedures punish subordinates

rather than reward productive practices. Instead of promoting organizational learning, coercive procedures force reluctant subordinates to comply. The consequences are not surprising. For example, formalization promoted alienation (Kakabadse, 1986) and undermined job satisfaction (Arches, 1991) and was positively associated with absenteeism and stress and negatively related to job satisfaction and innovation (Rousseau, 1978). Likewise, school formalization is typically related to negative consequences (Anderson, 1968; Hoy, Blazovsky, & Newland, 1983; Hoy & Sweetland, 2000; Isherwood & Hoy, 1973). Rules simply cannot be designed to make work foolproof; in fact, the more restrictive the procedures, the more hindering they are in dynamic situations.

Enabling formalization assists employees with solutions to problems in their work. Enabling rules and procedures are flexible guidelines that reflect “best practices” and help subordinates deal with surprises and crises (Adler & Borys, 1996). For example, a stimulus for problem solving is not to adhere blindly to rules but to reflect on innovative ways to respond to novel situations. Indeed, what is often required is flexibility to substitute judgment for rigid rules. Hence, a general rule that professional judgment is encouraged and acceptable enables rather than hinders problem solving.

Enabling procedures invite interactive dialogue, view problems as opportunities, foster trust, value differences, capitalize on and learn from mistakes, and delight in the unexpected; in brief, they facilitate problem solving. Coercive procedures, however, frustrate two-way communication, are autocratic, see problems as obstacles, foster mistrust, demand consensus, suspect differences, punish mistakes, and fear the unexpected; in sum, they demand blind obedience to the rules. Enabling strategies require participation and collaboration. Trust is required, and improvement is the objective. In contrast, coercive procedures are top-down, unilateral, and unyielding. The coercive system is designed to monitor and control teachers. The point we are making is that adverse consequences are not necessarily inherent in rules themselves but rather are due to the decisions that administrators make in establishing rules and procedures (Adler, 1999). The differences in the two approaches are summarized in Table 1.

Not surprisingly, implementation of enabling and coercive formalization has similar differences. Blau's (1955) classic analysis of the dynamics of bureaucracy is instructive. He suggested that if practices are to be effectively implemented, organizations must have five characteristics: employment security, a professional perspective, cohesive work groups, little management-labor conflict, and pressure to change. To this list, Adler (1993) added three additional features: employee participation, employee skills, and coordination for improvement. Flexibility in the implementation is also critical.

TABLE 1
Contrasting Enabling and Coercive Formalization

<i>Characteristics of Enabling Rules and Procedures</i>	<i>Characteristics of Coercive Rules and Procedures</i>
Engage in interactive dialogue	Frustrate two-way communication
View problems as opportunities	View problems as obstacles
Foster trust	Foster mistrust
Value differences	Demand consensus
Learn from mistakes	Punish mistakes
Delight in the unexpected	Fear the unexpected
Facilitate problem solving	Blindly follow the rules

TABLE 2
Contrasting Enabling and Coercive Contexts

<i>Characteristics of Enabling Contexts</i>	<i>Characteristics of Coercive Contexts</i>
Employment security	Employee insecurity
Professional perspective	Autocratic perspective
Cohesive work groups	Divisive relationships
Limited management-labor conflict	Management-labor conflict
Pressures for change	Maintenance of status quo
Employee participation	Administrative control
Employee skills	Limited employee expertise
Coordination for improvement	Layers of control

Coercive rules and procedures are difficult to change because revision is typically viewed as a threat to the existing power balance. Moreover, the context for implementation of coercive procedures is usually one that limits employee security, voice, and skills and promotes employee apathy, conflict, and rigidity (Adler & Borys, 1996). The contrasts in contexts are summarized in Table 2. In brief, enabling and coercive formalization have different features and are implemented in different organizational contexts.

Centralization

Centralization of authority is the locus of control for organizational decision making; it is the degree to which employees participate in decision making. High centralization means that decisions are concentrated at the top in the hands of a few, whereas low centralization indicates that the authority for making decisions is diffuse and shared among many. Hierarchy of authority,

high centralization, is a classic characteristic of structure; authority is concentrated at the top and flows down the chain of command. High centralization often is coercive. Directives from superiors are to be followed without question. The central purpose of hierarchy is to guarantee disciplined compliance.

Hindering centralization refers to a hierarchy and administration that gets in the way rather than helps its participants solve problems and do their work. In such structures, the hierarchy obstructs innovation, and administrators use their power and authority to control and discipline teachers. In schools where professional work is controlled in top-down fashion, the consequence is often resistance by teachers who are coerced to play the bureaucratic game of satisfying artificial standards rather than serving the needs of their student clients (Hoy et al., 1983). Hierarchies typically respond to outside pressures in such dysfunctional ways as increasing autocratic supervision, overstandardizing work processes, and standardizing outputs (Mintzberg, 1979, 1989)—all of which can hinder the effective operation of the organization. Organizations require direction, coordination, and compliance, and hierarchy is central to these efforts. Yet, participants usually react negatively to unilateral attempts to control them because it is a violation of the norm of egalitarianism that is so pervasive in American society. The ubiquitous control mentality that pervades many hierarchies produces dissatisfaction, alienation, and hostility (Aiken & Hage, 1968; Hoy et al., 1983; Mintzberg, 1989).

Enabling centralization helps employees solve problems rather than obstructing their work. The authority structure of an organization can help superiors and subordinates work across recognized authority boundaries while retaining their distinctive roles (Hirschhorn, 1997). Enabling hierarchy is an amalgam of authority in which members feel confident and are able to exercise power in their professional roles. We conceive of enabling centralization as flexible, cooperative, and collaborative rather than rigid, autocratic, and controlling. Administrators use their power and authority to buffer teachers and design structures that facilitate teaching and learning.

Structure in schools is inevitable. Schools have boards, superintendents, assistant superintendents, principals, assistant principals, teachers, and students. For all the talk about flat structures, empowerment, teacher participation, and reform, schools like all organizations have hierarchies. In spite of all the reform rhetoric, the evidence has suggested that hierarchy of authority in schools will continue. Indeed, the accountability movement itself demands more, not less, hierarchy. The key to avoiding the dysfunctions of centralization is to change the kind of hierarchy rather than to try to eliminate it. We need to develop structures that enable rather than hinder, or as Hirschhorn (1997) has suggested, we must embrace hierarchy and enliven it with feelings

TABLE 3
Contrasting Enabling and Hindering Centralization

<i>Characteristics of Enabling Hierarchy</i>	<i>Characteristics of Hindering Hierarchy</i>
Facilitates problem solving	Frustrates problem solving
Enables cooperation	Promotes control
Collaborative	Autocratic
Flexible	Rigid
Encourages innovation	Discourages change
Protects participants	Disciplines subordinates

and passion. Participants don't like to be controlled, especially by an arbitrary and autocratic hierarchy. But just as formalization can be enabling rather than coercive, we postulate that hierarchy can be enabling rather than hindering. Again, we reiterate that adverse consequences of hierarchy are not inherent in structure itself but rather are due to the decisions of administrators in implementing their authority.

We are not simply advocating decentralization of authority as enabling; the problem is more complicated. Our argument is not against hierarchy *per se* but rather against a specific kind of centralization—hierarchy that hinders. Our conceptualization of hierarchy of authority is along a continuum from enabling at one pole to hindering at the other. Again, we are referring to the kind not the amount of centralization (Hoy & Sweetland, 2000). The contrasting characteristics of enabling and hindering centralization are summarized in Table 3.

Two fundamental features of bureaucracy are formalization and centralization. Our conceptualizations of these features lead to the generation of four kinds of bureaucratic structures. These structures are theoretical; that is, pure types in the Weberian sense. Whether they exist in the actual world of schools is an empirical question, one that will be examined later.

Four types of structure are developed by cross-partitioning the dimensions of formalization and centralization in a 2 x 2 crossbreak (see Figure 1). Enabling bureaucracy is a structure that is formed by enabling formalization and enabling centralization—the rules, regulations, and procedures are helpful and lead to problem solving among members rather than rigid, coercive activities that demand conformity. Complementing enabling formalization is a hierarchical structure that helps rather than hinders subordinates in their jobs, what we have called enabling centralization. These two bureaucratic features provide an integrated and effective structure—enabling bureaucracy.

		Formalization	
		Enabling	Coercive
Centralization	Enabling	Enabling Bureaucracy	Rule-bound Bureaucracy
	Hindering	Hierarchical Bureaucracy	Hindering Bureaucracy

Figure 1: A Typology of School Bureaucracy

When formalization and centralization coerce and hinder rather than help, the other extreme is found. Mintzberg (1989) called such structures machine bureaucracies and Gouldner (1954) described them as punishment-centered bureaucracies, but we prefer the term *hindering bureaucracy* because they not only control and punish but also hinder the effective and efficient operation of the organization.

If formalization and centralization are independent dimensions, then two additional structures are possible, one in which there is enabling formalization but hindering centralization and another that has coercive formalization and enabling centralization. We call the first *hierarchical bureaucracy* because the focus is on hierarchy. In such organizations, we would expect administrators to “ride rough shod” over any and all rules, including enabling ones. Indeed, there may be little need for rules because the administration would make all decisions; rules would be superfluous. The second pattern we term *rule-bound bureaucracy* because of its unyielding attention to rules and regulations. In this case, administrators would be rigid bureaucrats that enforce the rules to ensure disciplined compliance. The rules rule. Thus, four types of bureaucracy are generated: enabling bureaucracy, hindering bureaucracy, hierarchical bureaucracy, and rule-bound bureaucracy.

Thus, we have developed a theoretical argument for four types of school structures based on the bureaucratic dimensions of formalization and

centralization. Do these four types of structures exist in the real world of schools? We turn next to an empirical assessment of this question in three separate studies.

PRELIMINARY STUDIES

In the first two studies (Hoy & Sweetland, 2000), we attempted to develop a set of reliable and valid measures for formalization and centralization. The theoretical framework developed above was used to generate a series of descriptive statements describing the formalization and centralization of schools.

Item Generation

Initially, a 24-item questionnaire was developed to measure the two bureaucratic dimensions of formalization and centralization (Hoy & Sweetland, 2000). The task was to develop four sets of Likert-type items—items to measure the degree of enabling formalization, coercive formalization, enabling centralization, and hindering centralization. For example, items to measure enabling formalization included the following:

- Administrative rules in this school are guides to solutions rather than rigid procedures.
- The administrators in this school use their authority to enable teachers to do their jobs.
- Administrative rules help rather than hinder.

Items to measure coercive formalization included the following:

- Administrative rules in this school are coercive.
- Administrative rules in this school are substitutes for professional judgment.
- Administrative rules in this school are used to punish teachers.

Items to measure enabling centralization included the following:

- The administrative hierarchy of this school facilitates the mission of the school.
- Administrators in this school are effective buffers for teachers.
- The administrative hierarchy of this school enables teachers to do their job.

Items to measure hindering centralization included the following:

- The administrative hierarchy of this school obstructs innovation.
- In this school the authority of the principal is used to undermine teachers.
- The administrative hierarchy of this school causes more problems than it solves.

Twenty-four items were generated for testing with teachers currently teaching in the public schools of Ohio. All items were 5-point Likert-type items on which teachers were asked to describe the extent to which each item described behavior in their school from *never* to *always* occurs.

Sample 1

Responding to the questionnaire were 61 teachers in three educational administration courses at The Ohio State University. The teachers represented 61 different schools and worked in a diverse set of urban, rural, and suburban schools. If one group is overrepresented, it is likely the urban group because a majority of the teachers taught in the urban area. Participation in the study was voluntary, yet more than 90% of the teachers returned usable questionnaires. All responses were anonymous and all respondents were teachers.

Exploratory Factor Analysis

Using a principal-axis factor analysis, we searched for two independent factors, one for centralization and another for formalization. The two-factor solution with a varimax rotation revealed that many items loaded strongly on both factors rather than two distinct factors. Thus, we turned to a one-factor solution. The factor loadings ranged from .40 to .81. All the enabling items loaded positively as predicted, and the hindering or coercive items, as anticipated, had negative loadings. The one-factor solution was clearly the better solution both conceptually and empirically (Hoy & Sweetland, 2000).

In this sample of schools, when the hierarchy was enabling, so were rules and vice versa. Conceptually, we did not find the four types of bureaucracy described earlier. Rather, school bureaucracy varied along a single continuum with enabling bureaucracy at one extreme and hindering bureaucracy at the other; enabling bureaucracy was a bipolar construct. The 24 items used to measure enabling formalization and enabling centralization combined to form a single scale of enabling bureaucracy with strong internal consistency ($\alpha = .94$).

Some Validity Evidence

To assess the validity of enabling bureaucracy, we tested two relationships. Aiken and Hage (1968), in their seminal study of bureaucracy, found that a hierarchy that made organizational participants dependent on superiors produced alienated and dissatisfied professionals in social welfare agencies. The same was true for organizations in which job incumbents were required to consult rules in fulfilling their professional responsibilities; that is, organizations with a high level of job codification. Similar results have been confirmed in high schools (Hoy et al., 1983). The critical features of enabling bureaucracy are their enabling centralization and enabling formalization; hierarchy and rules help rather than constrain participants. Thus, we theorized that enabling bureaucracies would not be characterized by hierarchical structures that promoted dependence or constrained professional decisions by rule consultation (high job codification). Indeed, that was the case; dependence on the hierarchy ($r = -.62, p < .01$) and dependence on rules ($r = .25, p < .05$) were negatively related to our measure of enabling bureaucracy; the more enabling the school structure was, the less constrained teachers were by either the hierarchy or the rules. These results offered some initial evidence for the validity of enabling bureaucracy.

Sample 2

One of the limitations with the first sample was both the small number of schools and the location of the schools in one state. The second sample of schools was much broader: 116 different schools were represented, one teacher for each school. The sample was diverse, representing schools in the five states of Ohio, Michigan, New Jersey, Virginia, and New York. Professors of educational administration collected data from teachers who were graduate students in five major universities. All responses were anonymous, and more than 89% returned usable questionnaires.

Factor Analysis

The new data were subjected to a principal-axis factor analysis. Consistent with the results of the first sample, we expected all the items to array themselves along a bipolar continuum from enabling at one extreme to hindering at the other. In fact, all the items did load strongly on the factor (range .53 to .81), and the alpha coefficient of reliability was .96. Thus, the data from the second sample had the same factor structure as the initial sample.

Additional Validity Evidence

We theorized that enabling bureaucracy should promote a sense of trust between teachers, and conversely, teacher trust of colleagues should promote a climate in which enabling bureaucracy could function effectively. Trust is a critical aspect of organizational life; it enables a leader to innovate and cope with confusion that often accompanies change (Bennis & Nanus, 1985). Moreover, Covey (1990) argued that trust is critical for productivity because it enables the organization to function effectively. Hence, we predicted that the more enabling the structure of schools, the greater the extent of collegial trust between teachers.

Etzioni (1961) built an entire theory of complex organizations on the assumption that coercive organizations tend to alienate workers, which finds strong support in the empirical literature (Etzioni, 1975). Our conceptualization of enabling bureaucracy is the antithesis of a coercive organization; therefore, we hypothesized that the more enabling the bureaucratic structure of schools, the less the sense of powerlessness among teachers.

Both of these hypotheses were supported. Collegial trust and teacher sense of powerlessness were related to enabling bureaucracy as predicted; the more enabling the bureaucracy, the more trust teachers have in their colleagues ($r = .61, p < .01$) and the less the sense of powerlessness among teachers ($r = -.74, p < .01$).

Summary

The theoretical dilemma, that sometimes bureaucracy frustrates organizational participants (Scott, 1998; Martin & Knopoff, in press) but at other times facilitates innovation and enhances organizational life (Adler & Borys, 1996; Craig, 1995), provided the impetus for this series of studies. Two classic structural aspects of bureaucracy—formalization and centralization—were measured.

Formalization was conceptualized along a continuum from enabling at one extreme to coercive at the other. Similarly, centralization can help or hinder the operations of an organization; hence, it was viewed along a continuum from enabling hierarchy at one extreme to hindering at the other. If formalization and centralization are two independent dimensions of organizational structure, then at least four types of schools can be theoretically formulated—enabling bureaucracy (enabling hierarchy, enabling rules), hindering bureaucracy (hindering hierarchy, coercive rules), hierarchical bureaucracy (hindering hierarchy, enabling rules), and rule-bound bureaucracy (enabling hierarchy, coercive rules). The results of two empirical studies,

TABLE 4
Items to Measure Enabling School Structure

Enabling formalization items	
1.	Administrative rules in this school enable authentic communications between teachers and administrators.
2.	Administrative rules help rather than hinder.
3.	Administrative rules in this school are guides to solutions rather than rigid procedures.
Coercive formalization items	
4.	Administrative rules in this school are used to punish teachers.
5.	In this school red tape is a problem.
6.	Administrative rules in this school are substitutes for professional judgment.
Enabling centralization items	
7.	The administrative hierarchy of this school enables teachers to do their job.
8.	The administrative hierarchy of this school facilitates the mission of the school.
9.	The administrators in this school use their authority to enable teachers to do their job.
Hindering centralization items	
10.	The administrative hierarchy obstructs student achievement.
11.	The administrative hierarchy of this school obstructs innovation.
12.	In this school the authority of the principal is used to undermine teachers.

however, demonstrated that enabling formalization and enabling centralization were not independent but rather formed a unitary bipolar factor. The factor was measured reliably and validly with a 24-item Likert-type scale.

THE CURRENT STUDY

The preliminary studies provided evidence of the nature, meaning, and measure of enabling school structures. There was, however, a major limitation to this early research. The measure of bureaucracy was determined by the perceptions of only one faculty member per school. Although this is fine for exploratory purposes, we wanted to replicate the results with a sample of schools in which there were multiple respondents for each school, consistent with Halpin's (1959) research on reliable perceptual measures for groups.

A second problem with the instrument is its length. Originally, we had anticipated measuring two dimensions of bureaucracy, but the results demonstrated one unitary dimension, which suggested that perhaps half as many items could be used to measure reliably and validly the concept of enabling school structure. To that end, we selected the 12 items with the strongest factor loadings, making sure that enabling, hindering, and coercive items were represented. The items selected are found in Table 4.

TABLE 5
A Comparison Between the Population and Sample

<i>School Property</i>	<i>State Parameters</i>		<i>Sample Characteristics</i>	
	M	SD	M	SD
School size	891	490	727	465
Socioeconomic status	0	1.00	-0.01	0.91
Urban-rural	0	1.00	-0.03	0.96

The purpose of this phase of the investigation was threefold: (a) check the stability of the factor structure of enabling bureaucracy, (b) increase the number of respondents from each school, and (c) test a number of original theoretical hypotheses to explore the relationships of enabling bureaucracy with other important school variables.

Sample

The sample for the current study consisted of 97 high schools in Ohio. Although procedures were not used to ensure a random sample from the population of high schools, care was taken to select urban, suburban, and rural schools from diverse geographic areas of the state. Only schools with 15 or more faculty members were considered candidates for the study. We selected high schools for two reasons: Their structures are typically more developed and complex than elementary and middle schools, and we wanted to control the level of the school. A total of 150 high schools were contacted and invited to participate, but for a variety of reasons only 98 agreed to participate (65.3%). One of the 98 high schools, however, did not meet the criteria for inclusion in the current sample. The high schools were defined by grade-span levels that included Grades 9 to 12 and Grades 10 to 12. Schools in the sample represented the entire range of socioeconomic status (SES); in fact, data from the Ohio Department of Education support the representativeness of the sample in terms of SES and urban-rural balance. Indeed, the sample of high schools was quite representative of Ohio high schools in terms of SES and urban-rural balance, but sample schools were a little smaller on average than were schools in the population. (See Table 5 for a comparison of the sample with the population.) The state indices on SES and urbanicity are reported in standard scores with 0 equal to the mean and a standard deviation of 1.

Data were collected from the teachers in each school at a regularly scheduled faculty meeting. A trained researcher during regular faculty meetings

administered research instruments. All responses were anonymous. Because the unit of analysis of this study was the school, two groups of faculty members were selected at random, and teachers were asked to respond to separate questionnaires; that is, some teachers received one set of questionnaires, and the others received a second set of questionnaires. For example, the enabling bureaucracy scores were on one questionnaire and the faculty trust score on the other; hence, the structural and trust variables were methodologically independent of each other, but both were measures of school properties. The items were written to capture school characteristics; hence, they were aggregated at the school level for each variable to provide school scores.

Factor Stability, Reliability, and Validity of the Enabling Bureaucracy Scale

The 12-item enabling bureaucracy scale was assessed for its factor stability, validity, and reliability. To that end, we did a principal-axis factor analysis of the selected 12 items for each of the earlier samples and the current sample so that we could compare the factor structures in each of the three samples. The results were encouraging. In the first sample, the factor loadings ranged from .52 to .80. The items loaded as predicted; that is, all enabling items loaded positive, and all coercive and hindering items loaded negative. The single factor explained 46.8% of the variance. The second sample provided similar results. Factor loadings ranged from .55 to .85 and again loaded as predicted, and the factor explained 53.6% of the variance. Finally, the current sample replicated the results of the earlier two samples in an even stronger fashion. The loadings were stronger (range .69 to .86); in fact, 10 of the 12 loadings were .8 or greater. The variance explained by the factor was greater (64.4%), and only the first factor had an eigenvalue greater than 1. In addition, the alpha coefficients for the scale in each sample were strong (.90, .93, and .95, respectively, for the three samples). See Table 6 for a comparison of the results of the three factor analyses.

The 12-item short form is a good parsimonious measure of enabling bureaucracies: It is a balanced measure with 6 enabling items (positive loadings) and 6 hindering items (negative loadings), it has high reliability in all samples (never lower than .9), it correlates almost perfectly with its longer version in the first two samples (.96 and .99, respectively), and finally, it has good factor and predictive validity. All validity evidence mounted in the first two studies is relevant for the new 12-item measure because the correlations between the two forms are near 1.

TABLE 6
A Comparison of Factor Loadings for the Three Samples

<i>Item Number</i>	<i>Statement</i>	<i>Factor 1 Enabling Bureaucracy</i>		
		<i>S₁</i>	<i>S₂</i>	<i>S₃</i>
1.	Administrative rules in this school enable authentic communications between teachers and administrators.	.71	.85	.85
2.	The administrative hierarchy of this school enables teachers to do their job.	.76	.83	.83
3.	Administrative rules help rather than hinder.	.72	.75	.80
4.	The administrative hierarchy obstructs student achievement.	-.80	-.75	-.81
5.	Administrative rules in this school are used to punish teachers.	-.70	-.74	-.81
6.	Administrative rules in this school are guides to solutions rather than rigid procedures.	.52	.74	.81
7.	The administrative hierarchy of this school facilitates the mission of the school.	.69	.69	.86
8.	In this school red tape is a problem.	-.53	-.75	-.71
9.	The administrative hierarchy of this school obstructs innovation.	-.79	-.72	-.83
10.	In this school the authority of the principal is used to undermine teachers.	-.75	-.75	-.81
11.	The administrators in this school use their authority to enable teachers to their job.	.76	.61	.69
12.	Administrative rules in this school are substitutes for professional judgment.	-.53	-.55	-.81
Percentage of variance		46.80	53.60	64.40
Alpha coefficient		.90	.93	.95

Hypotheses

The next phase of the investigation was to generate a set of hypotheses relating enabling school structures with important school outcomes. We theorized that for enabling organizations to be genuine and effective, they needed to be anchored in trust. Earlier research (Hoy & Sweetland, 2000) demonstrated that trust between teachers was strongly related to enabling bureaucracy. Trust is a key aspect of organizational life; it enables a leader to innovate and deal with resultant confusion that often accompanies change (Bennis & Nanus, 1985). Moreover, Covey (1990) argued that trust is critical for a productive environment because it enables the bureaucracy to function effectively. But teachers need to do more than trust each other if they are to be innovative and effective; they must trust their leader. Finally, enabling structures are characterized by principals who are disposed to help teachers solve

problems, encourage open communication, and help teachers do their jobs. Hence, we hypothesized the following:

Hypothesis 1: The more enabling the bureaucratic structure of the school, the greater the extent of faculty trust in the principal.

This relationship is likely reciprocal; that is, enabling structure facilitates faculty trust in the principal, and conversely, faculty trust in the principal reinforces enabling bureaucracy.

Similarly, we expected enabling structures to facilitate authenticity in schools because authenticity and trust go hand in hand. The open communication encouraged in enabling organizations helps participants to be straight with each other and limits the need to hide or spin the truth (Nyberg, 1993; Sweetland & Hoy, in press). Spinning the truth is the adding, subtracting, partially displaying, or concealing what one person believes to be true while communicating with another (Nyberg, 1993). Truth spinning is the other side of the authenticity coin. Enabling bureaucracies foster trust and help participants learn from mistakes. Such behaviors should promote open and authentic interactions, not concealment, deception, or delusion. Hence, spinning the truth should be limited in enabling organizations. The reciprocal nature of truth spinning and enabling structures seems clear: Enabling structures dampen truth spinning, and truth spinning undermines enabling bureaucracy. Thus, we hypothesize the following:

Hypothesis 2: The more enabling the bureaucratic structure of the school, the less the degree of truth spinning in school.

Conflict can be destructive or constructive in schools, but role conflict typically undermines the efficient operation of organizations by confusing participants (DiPaola & Hoy, 2001). Role conflict creates inconsistent behavior because the employee tries to do things accepted by one person but not by another, hence creating a tension and destructive edge in organizational relationships (Rizzo, House, & Lirtzman, 1970). We postulate that such inconsistency, tension, and negative conflict will be much less evident in enabling school structures because of the flexibility, openness, and problem-solving orientation found in such schools. Moreover, enabling bureaucracies encourage cooperation and broad professional discretion rather than narrow organizational control. Therefore, we hypothesized the following:

Hypothesis 3: The more enabling the bureaucratic structure of the school, the less the extent of role conflict in the school.

Once again, we assumed reciprocal causality. Although enabling organizations should limit role conflict, it also seems likely that role conflict will undermine enabling organizations and promote coercion and control.

Measures

To test these hypotheses, we needed reliable and valid measures. The measure of enabling bureaucracy has already been discussed at length; thus, we turn directly to the indicators of faculty trust in the principal, truth spinning, and role conflict.

Trust in the principal. Trust in the principal was measured by a subtest of the Faculty Trust Survey designed to measure collective perceptions of faculty trust. The construct validity of the scale has been supported in two factor analytic studies (Hoy & Tschannen-Moran, 1999). Reliabilities are consistently high, always in the .90 range; in the current sample, the alpha coefficient of reliability was .98. Teachers respond to the Faculty Trust Survey by describing faculty behaviors along a 6-point Likert-type response set ranging from *strongly agree* to *strongly disagree*. Sample items include, "The principal in this school is unresponsive to teachers' concerns," (score reversed), and "Teachers in this school can rely on the principal."

Spinning the truth. To measure truth spinning in schools, we used a set of items developed by Sweetland and Hoy (in press) to create a truth-spinning index for each school. Teachers were asked how much deception and spinning of the truth characterized the interpersonal relations in their schools—for example, "In this school the principal's deceptions are intentional" and "In this school the principal is shrewd and artful at alternatively revealing and obscuring information." Similarly, teachers were asked to describe their interpersonal relations with each other—for example, "In this school the truth is hedged" and "In this school teachers are afraid to tell the truth." Evidence of the predictive validity of truth spinning is presented in earlier research (Sweetland & Hoy, in press). The alpha coefficient of reliability in the current study was .87.

Role conflict. Role conflict is a 6-item Likert-type scale developed by Rizzo et al. (1970) to measure inconsistent behavior. The measure has good validity and strong reliability. In this study, the alpha coefficient of reliability was .88. Sample items include, "I receive incompatible requests from two or more people" and "I do things that are apt to be accepted by one person and not by others."

RESULTS

We tested the three original hypotheses of this study by subjecting the relationships to correlational analysis. All three of the hypotheses were supported. The more enabling the school bureaucracy, the greater the degree of faculty trust in the principal ($r = .76, p < .01$), the less the truth spinning ($r = -.74, p < .01$), and the less role conflict ($r = -.71, p < .01$). Enabling schools, as predicted, were imbued with faculty members who trusted their principals, who were disinclined to spin the truth, and who suffered from much less role conflict than did their colleagues in schools with hindering structures.

Next, we examined the combined influence of the variables under study in predicting enabling bureaucracy. To that end, we regressed enabling structure on faculty trust in the principal, truth spinning of the faculty, and perceived role conflict in the school. As expected, the three independent variables had a major relationship with enabling bureaucracy; in fact, the three variables combined ($R = .89, p < .01$) explained 78% of the variance (adjusted R^2) of enabling bureaucracy. Moreover, each predictor made a significant independent contribution to enabling structure with standardized beta weights of $-.30$ ($p < .01$) for role conflict, $.39$ ($p < .01$) for trust in the principal, and $-.38$ ($p < .01$) for teachers' spinning the truth. Because size, urbanicity, and SES are three demographic variables that are often related to school outcomes, we decided to control these variables by simultaneously entering them in the regression equation together with the initial three independent variables. The results were relatively unaffected because none of the demographic variables made a significant contribution to enabling bureaucracy, whereas all three of the original variables continued to have significant independent effects. The regression and correlational results are summarized in Table 7. Note that entering the three demographic variables had negligible effects on the results.

DISCUSSION

The empirical phase of the study demonstrated that enabling structure is a unitary construct that can be measured reliably and validly with a 12-item Likert-type scale. In three separate samples, the factor structure of the construct was confirmed. Construct and predictive validity were supported in all three analyses. We purposefully used different variables in each succeeding study to demonstrate the validity of enabling bureaucracy. All of the predictor variables were ones for which we developed a priori theoretical rationales, and the confirmation of each hypothesis provided further evidence to bolster

TABLE 7
Summary of Correlational and Regression Analyses of Enabling Structure

<i>Independent Variables</i>	<i>Zero-order Correlations (r)</i>	<i>Regression 1 Standardized Beta Weights</i>	<i>Regression 2 Standardized Beta Weights</i>
Role conflict	-.71**	-.30**	-.30**
Trust in principal	.74**	.39**	.40**
Truth spinning	-.78**	-.38**	-.40**
Demographic variables			
Socioeconomic Status	-.01	—	.07
Size	-.18	—	.05
Urbanicity	-.22*	—	.01
Multiple correlation		$R = .789^{**}$ (Adjusted $R^2 = .78$)	$R = .801^{**}$ (Adjusted $R^2 = .79$)

* $p < .05$. ** $p < .01$.

the idea of enabling structures. Hence, in the first sample, enabling structure was negatively related to dependence of teachers on the hierarchy and rules. In the second sample, enabling structure was positively related to trust between teachers and between teachers and the principal but negatively related to a sense of powerlessness among teachers. In the third sample, enabling structure was positively related to faculty trust in the principal and negatively related to both role conflict and truth spinning in schools.

Enabling schools encourage trusting relations between teachers and between teachers and the principal; facilitate telling the truth and make it unnecessary, and likely dysfunctional, to spin the truth; and limit the degree of role conflict because we suspect trust and truthfulness make rigid roles obsolete. Trust, truthfulness, and limited role conflict are hallmarks of enabling organizations; indeed, they are central to enabling schools regardless of size, SES, and urbanicity.

The theoretical rationale for the hypotheses assumed that trust was a key ingredient of organizational life because it enables a leader to innovate without fear of creating destructive conflict (De Dreu & Van De Vliert, 1997). The findings of this study support the argument that enabling structures are characterized by principals who help teachers solve problems, encourage openness, and support teachers to do their jobs without undue concern for conflict and punishment. Enabling organizations foster trust and help teachers learn from mistakes. Such behaviors should promote truthful and authentic interactions and limit concealment, deception, and delusion; in fact, the evidence supports the notion that enabling structures dampen truth spinning, and truth spinning undermines enabling bureaucracies. Research is beginning to show

the pivotal importance of organizational trust in facilitating student achievement (Goddard, Tschannen-Moran, & Hoy, in press). The strong link between faculty trust and enabling organizations found in this study suggests that such structures will also aid student achievement.

Role conflict typically undermines efficient operation by confusing participants (DiPaola & Hoy, 2001) and creating tension and a destructive edge in organizational relations (Rizzo et al., 1970). Because enabling structures encourage cooperation, flexibility, problem solving, and broad professional autonomy, it is not surprising that enabling structures are relatively free of role conflict and are in a stronger position to deal with emerging professional problems than are hindering structures. Furthermore, the finding that enabling structure is negatively related to a sense of powerlessness (Hoy & Sweetland, 2000) suggests that enabling structure empowers rather than alienates teachers.

One of the limitations with our analysis is that we have sketched enabling bureaucracy in broad and general strokes. The items that measure the concept are general. For example, teachers say, "Administrative rules are guides to solutions rather than rigid procedures" and "substitutes for professional judgments." But what solutions and what judgments? Enabling structures seem to be humanistic; that is, ones that are concerned as much with causes of behavior as the actual act. The focus of enabling rules is on helping, not punishing. Thus, deviation from the rules likely triggers a search for the cause rather than simple punishment. When teachers, for example, do not comply with the administrative rule that students must be in class before the bell rings or they are sent to the office, then the critical question is why. Is the time too short? Are teachers simply indifferent? Is teacher noncompliance a symbolic act of resentment? Is there no follow-up from the office? Is the rule a meaningless ritual? The point is that in hindering bureaucracies, the emphasis is on compliance, whereas in our conceptualization of enabling school structures, the deviation is seen as a problem to be understood and solved. Deviation from the tardy rule can be used as a way to punish teachers, or it can be seen as an opportunity to solve a problem. The kind of school structure, enabling or hindering, will define which type of rule it is.

We also suspect that in schools where administrative rules are used to coerce teachers to comply, there may be a cascading effect. Teachers may be tempted to turn their frustrations with the administration toward their students by treating their students the same way they are treated by their superiors. Unconditional and absolute rules imposed on teachers may lead to unconditional and absolute rules imposed on students. Indeed, the rigid rules may become part of a culture of coercion that permeates relationships at all levels in the school including teacher-administrator, student-teacher, and

student-administrator. The picture we are sketching is extreme. The issue is a matter of degree rather than dichotomy. The point is that as we search for examples, those that come to mind are extreme, and we have only scratched the surface.

As we have seen, rules and hierarchy vary together. When the rules are enabling, so is the hierarchy and vice versa. In high schools, the principal and assistants represent the hierarchy. What are examples of enabling hierarchies? When teachers describe the administration as one that helps them do their job or facilitates the mission of the school, what specifically does that mean? Clearly, it means different things in different schools, but it is likely that teachers are describing an administration that is sympathetic, supportive, and perhaps collegial. The principal in an enabling school is one who finds ways to help teachers succeed rather than one who monitors teacher behavior to ensure compliance. For example, in one school where there was tremendous pressure on everyone to get student proficiency tests above the state average, we found a principal with an open-door policy with teachers. She cared for teachers and respected their professional judgments. She was unwilling to tell teachers how to get the scores up and instead was a colleague working with them on this difficult problem. She demonstrated her commitment to them and problem solving by working long and hard with teachers. One hallmark of her supportive behavior was that teachers knew that they could always find this principal in her office every Saturday from 9:00 a.m. until 12:00 p.m. There was no press for teachers to be in school on Saturdays, but everyone knew that this principal was always available and ready to talk either on the phone or in person. She enabled. No secretaries, no students, no guidance counselors, no other administrators, just the principal was there every Saturday. Leading by example was evident; her standards for her own behavior were higher than those she held for her teachers, and teachers respected her for it. We suspect that transformational leadership (Bass & Avoilio, 1994; Leithwood & Duke, 1999) is strongly related to the creation of enabling school structures, but of course, that remains an empirical question.

The examples that we have provided for enabling school structures are modest at best. Quantitative approaches can be used to identify schools with enabling and hindering structures, but what is needed at this juncture are also qualitative studies to map specific examples of enabling rules and enabling hierarchy, as well as the internal dynamics of such structures. In this way, we will learn the specifics of enabling authority and enabling rules in schools, which will aid in the suggestion of strategies of action for school principals and teachers.

The conceptualization and measure of school structures along an enabling-hindering continuum is useful and sets the frame for a host of

research questions. We have already suggested the need for qualitative studies to enhance and enrich the concept of enabling school structure. We now turn to a few examples of the kind of quantitative studies that are needed to move this line of inquiry forward. First, the structure of schools is likely related to the effectiveness of schools. Teachers are more likely to enjoy and be professionally challenged by enabling structures than by hindering ones; hence, teacher morale and job satisfaction should be higher. But, furthermore, enabling school structures should be places where professional relations are open, collegial, supportive, and empowering. Such organizations should have high collective efficacy. Collective efficacy should give teachers purpose, encourage them to plan and take responsibility for student achievement, and foster persistence in teaching to overcome temporary setbacks (Bandura, 1997; Sweetland & Hoy, 2000). Such planning, persistence, purpose, and responsibility should promote higher levels of student achievement in schools (Bandura, 1997).

Enabling school structures should generate enabling knowledge. Enabling knowledge has at least two meanings. First, it refers to knowledge that enables one to solve problems, and second, it refers to the creation of knowledge by organizations. We predict that enabling school structures are critical in both of these enterprises: enabling problem solving and the creation of knowledge by organizations. Hence, enabling bureaucracy should be directly associated with the school as a learning organization. Knowledge needs to be supported by a number of activities that enable it to develop in spite of obstacles, and we predict that enabling structures provide such a context for schools. Knowledge enabling involves both deliberate activities—those that can be planned and directed by the administration and emergent ones that are the unintended consequence of intended actions or the discovery after the fact that a particular activity enhances knowledge creation (Von Krogh, Ichijo, & Nonaka, 2000). In sum, we hypothesize that enabling school structures are important to the development of effective learning organizations (Senge, 1990) and to the creation of enabling knowledge.

Another significant series of research questions revolves around the conditions that are necessary to facilitate the emergence of enabling school structures. What environmental constraints enhance and prevent the development of enabling structures? To what extent do recent efforts to make schools more accountable to the public impede or enhance the development of such organizations? What kind of educational leadership is necessary for enabling schools? Is transformational leadership a necessary condition? How do race (Larson, 1997) and gender (Capper, 1993) affect school organization? To what extent is enabling structure related to a culture of openness? To motivation of teachers? To power and politics? To constructive and destructive

conflict? To open patterns of communication? To shared decision making? And the list goes on. There seems to be little question that enabling bureaucracy is a heuristic construct, one that is pivotal in designing and building better schools.

CONCLUSION

We have conceptualized enabling school bureaucracy along a continuum with enabling at one pole and hindering at the other. Rules and hierarchy are the two major aspects of the school structure, which combine to form a unitary, bipolar construct. Furthermore, we have operationalized school structure with a 12-item Likert-type scale that measures the degree to which a school structure is enabling or hindering. The reliability of the scale has been high and the validity strong in three separate samples.

The prototype for an enabling bureaucracy is a hierarchy that helps rather than hinders and a system of rules and regulations that guides problem solving rather than punishes failure. Although hierarchy can hinder, that need not be the case; in fact, in enabling school structures principals and teachers work cooperatively across recognized authority boundaries while retaining their distinctive roles. Similarly, rules and regulations are flexible guides for problem solving rather than constraints that create problems. In brief, both hierarchy and rules are mechanisms to support teachers rather than vehicles to enhance principal power.

The prototype for a hindering bureaucracy is a hierarchy that impedes and a system of rules and regulations that is coercive. The basic objective of hierarchy is disciplined compliance of teachers. The underlying administrative assumption in hindering structures is that teacher behavior must be closely managed and strictly controlled. To achieve the goal of disciplined compliance, the hierarchy and rules are used to gain conformity. Indeed, rules and regulations are used to buttress administrative control, which in turn typically hinders the effectiveness of teachers. In sum, the roles of hierarchy and rules are to assure that reluctant, incompetent, and irresponsible teachers do what administrators prescribe. The power of the principal is enhanced but the work of the teachers is diminished.

The picture that emerges in enabling bureaucracy is an organization imbued with trust; faculty members trust the principal and each other. There is no need for varnishing the truth, and indeed, little truth spinning is found. On the other hand, a hindering structure (the other end of the enabling continuum) is characterized by teacher sense of powerlessness, role conflict, and dependence on rules and the hierarchy. We suspect that teachers in hindering

structures try to avoid conflict and play it safe by hiding behind rules and demonstrating blind obedience to authority. Moreover, when teachers are confronted with coercive rules, they likely defend their actions by spinning the truth in ways to satisfy their superiors and avoid conflict and punishment.

In this analysis, our major concern was exploring the theoretical and empirical roots of a new construct of school structure, one that enables rather than hinders. In this regard, our work is encouraging, but it is merely a beginning of what we hope will be a new and important line of inquiry about school structure, school improvement, and student achievement. We postulate that better schools are possible, and one key ingredient to more effective schools is a school structure that enables participants to do their jobs more creatively, cooperatively, and professionally. Designing better schools seems inextricably bound to creating enabling school structures.

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