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ABSTRACT

Findings from a study that explored the relationship between school restructuring and school leadership are presented in this paper. Specifically, the research examined the processes involved in implementing the Primary Program, the first stage of British Columbia's "Year 2000" plan for the first 4 years of education. A survey of 2,547 teachers and principals in 272 British Columbia elementary schools yielded 770 responses--response rates of 30 and 67 percent for teachers and schools, respectively. Data were also obtained from case studies of six designated lead schools in the Primary Program, in which interviews were conducted with four teachers and the principal at each school. The study examined the relationships among five constructs of school restructuring: out-of-school and in-school processes; organizational and student outcomes; and school leadership. School leadership was operationally defined by transformational and transactional concepts. Findings indicate that: (1) the transformational dimension of school leadership had significant direct effects on in-school processes; and (2) out-of school processes, especially the community, had even greater direct effects on in-school processes than did school leadership. A conclusion is that the concept of transformational leadership is a useful image for understanding the role of principals in postbureaucratic organizations. Five figures are included. (54 references) (LMI)

Transformational Leadership and School Restructuring

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Transformational Leadership and School Restructuring

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In their recent book, Tangled Hierachies, Shedd and Bacharach (1991) argue that expectations for schools emerging within the forseeable future demand a different order of response than has been required to most previous reform initiatives. One category of past reform initiatives has stressed, for example, higher levels of basic skill achievement, increased use of direct instruction, minimum standards to be met by all students, widespread testing of outcomes and increased supervision of instruction. Practices associated with reforms of this sort can be relatively clearly specified and lend themselves to being implemented through exercising greater direct control over school activity. A second category of reform initiatives, however, has had quite different emphases: development of higher order thinking, cooperative learning among students, flexible and varied instruction by teachers, celebration of individual differences among students and greater autonomy for teachers. Practices associated with these reforms often cannot be well specified in advance: as a consequence, they have usually been implemented by providing greater autonomy to teachers in the hope that they will work out appropriate ways to accomplish the purposes for such reform.

Shedd and Bacharach (1991) contend that the typical bureaucratic structure of many current schools and school systems is a product

of the compromises that have been necessary to respond to these competing pressures for autonomy and control. And that, they claim, is the fundamental problem. Expectations for schools now emerging require:

> "... more discretion and more control, more flexibility and more direction, more room for professional development and more ways of ensuring accountability. Systems that produce compromises between these competing sets of needs are no longer sufficient, but neither are strategies that explicitly subordinate one set of needs to the other." (p. 5)

What sort of restructuring of schools is necessary simultaneously to meet demands for greater discretion and greater coordination between programs and among staff members? According to Shedd and Bacharach (1991), "a new definition of roles will have to be negotiated" (p. 192). Sarason's (1990) answer is similar. In his view, schools need to distribute power to move from a primary emphasis on top down or positional forms of power to more consensual and expertise-based forms of power. A flatter social structure in the school has the potential to allow for discretion, as well as unleashing the problem-solving capacities of staff. At the same time, a different kind of coordination and direction becomes possible, one that springs from an authentic understanding by staff of school purposes and a high level of commitment to achieving those purposes. A strong culture, one in which there is widespread agreement about those norms, beliefs and values guiding efforts to achieve the school's purposes is also central to such coordination.

Much has been written recently about the anticipated consequences for teachers of restructuring schools in the manner described by Sarason (1990) and by Shedd and Bacharach (1991). For example, teachers will become more professional (Sykes, 1990) exercise greater leadership in shaping their schools (Little, 1988) and have opportunities for continuous professional inquiry

(Gideonese, 1990). But these expectations largely overlook two key questions which need to be answered for restructuring to be successful: Through what processes will such restructuring occur? What are the consequences for those in formal leadership roles?

The importance of these questions as well as some tentative answers, initially became clearer to us in the context of research we were carrying out in British Columbia. The government in that Canadian province has developed a vision for its educational system through this decade (Year 2000, 1989) as well as policies to help guide carefully staged efforts by schools to move toward that vision. Special funding for "lead" schools, resource documents, Ministry consultation and staff development opportunities are among the forms of support provided to schools. Reforms envisioned by the Year 2000 spring from a constructivist view of learning - learning as a process of actively constructing personal meaning through both individual and social processes (Primary Program Foundation Document, 1990). Given such a view, a bundle of changes are proposed, for example, in the schools' curricula, the nature of instruction, the organization of schools, their physical characteristics and relationships between the school and the community. Year 2000, in short, has many of the attributes typically associated with the term restructuring.

During the 1989-90 school year, we began to inquire about the processes being used in twelve lead schools to implement the first stage of the Year 2000, the Primary Program: this is a policy governing the education of children in their first four years of school. While interested in change processes broadly, we also had a particular interest in leadership for change at the school level. It was through our experience in carrying out year one of this study that we arrived at tentative answers to the questions asked earlier. What processes lead to restructuring? To this question the short answer seemed to be; "processes which build commitment to change by supporting the initiatives of school people" (Rowan, 1990). What are the consequences of restructuring

for those formal leadership roles? The answer was certainly not "less leadership", even though teachers exercised more. Rather, a new form of leadership appeared to be emerging, a form with many similarities to what is being called "transformational leadership" in non-educational organizations (e.g. Bass, 1985; Yukl, 1989; Hunt, 1991).

The study reported in this paper, conducted during the 1990-91 school year, explored further the two questions and the tentative answers to those questions which arose from our year one (1990-1991) study in British Columbia. Also carried out in the context of schools implementing B.C.'s Primary Program, our work was explicitly guided by the conception of change processes and school leadership suggested by our 1990-1991 data.

Framework

A Model of the School Restructuring Process

Five constructs or sets of variables and the relationships among these variables are included in the model of school restructuring developed from year one of our study. These include Out-of-School Processes, In-School Processes, School Leadership, Organizational Outcomes and Student Outcomes. Out-of-School Processes are hypothesized to have direct effects on all other constructs. In-School Processes are hypothesized to have a direct effect on both Organizational and Student Outcomes. The effects of School Leadership or Student Outcomes are mediated by In-School Processes and Organizational Outcomes. These constructs (School Leadership will be treated separately) and their definition are as follows:

Out-of-school Processes

- *Ministry*: the extent to which school staffs value the initiatives of ministry personnel to explain the policy and its implications for their work; and the perceived adequacy of the

curriculum resources, money, personnel and other resources provided by the ministry;

- *District*: the degree to which staffs perceive as helpful the leadership provided by district personnel and professional associations, district staff development opportunities, resources and district policy initiatives in support of ministry policy;

- *School Community*: the extent of support or opposition from parents and the wider community for the policy as perceived by staffs; use of community resources; extent of parent involvement in the school;

In-School Processes

- *Goals*: the extent to which staff perceive that the goals of the policy are clear and are compatible with their own goals and the goals of the school;

- *School Leadership*: the extent to which staff believe that shared vision is developed, appropriate behaviour is modelled, group goals are pursued and teachers experience support, pressure and intellectual stimulation related to their policy implementation efforts;

- *Teachers*: the extent to which teachers are committed to their own professional development, believe the policy is compatible with their own views and feel committed and motivated to implement the policy;

- *School Culture*: the degree to which staff within the school perceive themselves to be collaborating in their efforts to implement the policy;

- *School Programs and Instruction*: the extent to which the policy is perceived to be compatible with teachers' views of appropriate programs and instruction and the priority given by teachers to policy implementation;

- *School policy, Organization and Resources*: the extent to which staff perceive school policies, materials, finances and teacher release time to support policy implementation;

Outcomes

- *Organizational outcomes*: staffs' perceptions of the nature of changes, due to policy implementation, which occurred with respect to school goals, culture, teachers, programs and instruction and policies and organization.

- *Student outcomes*: staffs' perceptions of the extent to which implementing the Primary Program resulted in student achievement

of those Intellectual, Social/Emotional, and Artistic/Aesthetic goals identified in policy.

This model is intended to describe a commitment-building orientation to school restructuring. Its perspective is also multi-level: Bossert argues that such a perspective "seems to chart the future for research on school organizations" effects ..." (1988, p. 351). Multi-level perspectives assume considerable interaction among those at different levels in the organization and conceptualize that interaction as complex and often subtle: for example, school districts create "contexts" within which schools' decision-making takes place and schools' decisions, in turn, shape the context for subsequent district decisions. More recent research on effective schools and leadership has been especially sensitive to the context in which schools function (Wimpleberg et al, 1989; Hallinger & Murphy, 1986). One limitation on much of this research, however, is its use of proxies for context - SES being the most popular. Our own model attempts to identify the specific Out-of-School Processes affecting schools, associated with community, school district and Ministry contexts.

An especially useful way of understanding the interaction that occurs within and across multiple levels in the organization is provided by social-information processing theory (e.g. Bandura, 1977): this gives rise to another premise on which the model is based. Such theory acknowledges the subjectively constructed meaning that each organizational member attributes to their work. It recognizes in addition, however, that such meaning is usually developed in a social environment (Isen & Hastorf, 1982; Cantor, Mischel & Schwartz, 1982), an environment in which social interpretations make "certain information salient and point out connections between behaviours and subsequent attitudes -- creating meaning systems and consensually shared interpretations of events for participants" (Pfeiffer and Lawler - quoted in Hart, 1990, p. 507). An adequate conception of school restructuring has to account for the personal construction of meaning by those

involved and the effect of such meaning making on the outcomes of restructuring. This premise led us to define the specific variables included in each construct in the model in terms of the perceptions of school-based personnel - teachers and administrators.

Arguably, the most controversial aspect of defining variables in the model, in terms of staff perceptions, concerns Student Outcomes. Such outcomes ought to be measured using independent, objective tests, some will argue. Our response to this argument is twofold. First, when researchers rely on independent, "objective" tests of student outcomes, practical exigencies usually limit the operational definition of such outcomes to those basic math and language skills assessed by existing standardized test data. This artificially narrow definition of dependent measures has received extensive criticism because it so poorly reflects the goals of many schools and certainly most educational reform and restructuring initiatives (Reynolds & Reid, 1985; Ousten & Maughan, 1985; Wilson & Corcoran, 1988). Second, although the educational community often assumes significant inaccuracy in teachers' judgements about student learning, there is no empirical warrant for such an assumption. On the contrary, as Egan and Archer note:

> Since the 1920's, there have been dozens of studies reporting correlations in the order of .5 to .6 between teacher ratings and various standardized tests. These correlations may be considered as coefficients of concurrent validity, and as such they are quite large. (1985, p. 26)

Transformational Leadership

Our year one research suggested that leadership is helpful in building commitment to the kind of restructuring proposed by the Primary Program and that the Year 2000 focused the attention of school leaders on the use of facilitative power and second-order

changes in their schools. Most descriptions of "Transformational Leadership" award it such a focus. As Roberts explains:

> This type of leadership offers a vision of what could be and gives a sense of purpose and meaning to those who would share that vision. It builds commitment, enthusiasm, and excitement. It creates a hope in the future and a belief that the world is knowable, understandable, and manageable. The collective action that transforming leadership generates, empowers those who participate in the process. There is hope, there is optimism, there is energy. In essence, transforming leadership is a leadership that facilitates the redefinition of a people's mission and vision, a renewal of their commitment, and the restructuring of their systems for goal accomplishment (1985, p. 1024).

Hunt (1991) traces the origins of transformational leadership, in particular the idea of charisma, to the early work of the well-known sociologist Max Weber. But transactional and transformational forms of leadership are parts of a leadership theory proposed in a mature form first by Burns (1978) and subsequently extended considerably by Bass and his associates (e.g. Bass, 1987; Bass & Avolio, 1989; Bass, Waldman, Avolio & Bebb, 1987) as well as others in non-educational contexts (e.g. Podsakoff, Todor, Grover & Huber, 1984; Podsakoff, Mackenzie, Moorman & Fetter, 1990). While systematic attempts to explore the meaning and utility of such theory in educational organizations have only recently begun (Sergiovanni, 1990; Leithwood & Jantzi, 1991; Leithwood, Jantzi & Dart, 1991), results to date are promising. These results lead us to expect that leadership practices will foster significant school restructuring.

Linked closely to the idea of transformational leadership is the idea of transactional leadership. Transactional forms of leadership are premised on exchange theory, that is, various kinds of rewards from the organization are exchanged for the services of the teacher who is seen to be acting at least partly out of self-

interest. Transactional leadership practices help teachers recognize what needs to be done in order to reach a desired outcome. According to theory, this increases teachers' confidence and enhances motivation as well. The two primary dimensions of transactional leadership identified in Bass' formulation of the theory (adapted to school contexts) are:

- *Contingent reward*: the school leader tells teachers what to do in order to be rewarded for their efforts.
- *Management-By-Exception*: the school leader intervenes with teachers only if standards are not being met.

Bass and associates consider transactional leadership practices to be a necessary but not sufficient basis for organizational leadership. Such practices do not motivate people to do their best or to maintain peak effort. Nor do they encourage people, as teachers are now being encouraged through current restructuring efforts, to assume more leadership responsibility themselves. Adding on transformational leadership practices encourages people to work for transcendental goals, to be self-motivating and to seek sources of self-actualization in their work place. Transactional leadership is closely analogous to "management" (Hunt, 1991).

Podsakoff and his associates (1990) have captured most of the practices currently associated with transformational leadership in six dimensions. Adopted to a school context, these include:

- *Identifying and Articulating a Vision*: Behaviour on the part of the leader aimed at identifying new opportunities for his or her school, and developing, articulating, and inspiring others with his or her vision of the future.
- *Providing an Appropriate Model*: Behaviour on the part of the leader that sets an example for teachers to follow that is consistent with the values the leader espouses.
- *Fostering the Acceptance of Group Goals*: Behaviour on the part of the leader aimed at promoting cooperation

among teachers and assisting them to work together toward a common goal.

- *High Performance Expectations*: Behaviour that demonstrates the leader's expectations for excellence, quality, and/or high performance on the part of teachers.

- *Providing Individualized Support*: Behaviour on the part of the leader that indicates respect for teachers and concern about their personal feelings and needs.

- *Intellectual stimulation*: Behaviour on the part of the leader that challenges teachers to reexamine some of the assumptions about their work and rethink how it can be performed.

This study examined the relationship between the eight dimensions of transactional and transformational leadership, Out-of-School Processes, In-School Processes, Organizational Outcomes and Student Outcomes.

Method

Quantitative and qualitative methods were combined to address questions posed by the study. These included a survey of a representative sample of B.C. elementary schools and case studies of six lead schools, reputedly well along in implementing the Primary Program.

The Survey

Instrument Development: A survey instrument used during Year one of the project was revised to a considerable degree based upon Year one results. These revisions resulted in a 162 item instrument explicitly measuring the constructs in our framework. Three versions of the instrument were created by rotating sections within the instrument to reduce order bias in the responses; different versions were distributed among the districts in the sample.

Sample Selection and Data Collection: All public schools offering a program for primary students listed in the B.C. Ministry of Education document, *Public and Independent Schools Book: A Complete Listing of Schools and Principals as at September 28, 1990* constituted the population for the survey. One third of the schools within this population were sampled using a stratified sampling procedure. First, districts within the province were divided into three categories based on student enrollment as follows:

Small districts:	less than 3,000 students
Medium-sized districts	3,000 to 10,000 students
Large districts	more than 10,000 students

Second, districts were selected randomly within each category to approximate the proportion each category represented in the total population of provincial districts. All schools with primary programs in the selected districts were included in the sample. An estimate of the number of primary teachers within the school was calculated based on student enrollment data; each school was given enough copies of the survey for these teachers and the principal in each school.

Table 1 summarizes the population, the selected and the achieved sample by strata. A total of 770 individuals responded to the 2,547 questionnaires sent to the schools; the individual response rate was 30% and the school rate was 67%. The low response rate for teachers was at least partly due to considerable political instability in the province at the time of the survey as well as related teacher job-action in many districts.

Table 1

Summary of Survey Population, Sample and Respondents by Sample Strata

Strata	Population Districts	Population Schools	Sample Districts	Sample Schools	Respondents Districts	Respondents Schools
Small	44	269	14	96	13	65
Medium	23	501	7	154	7	99
Large	8	400	4	156	4	108
Total	**75**	**1170**	**25**	**406**	**24**	**272**

Data analysis: Following data entry and cleaning, a new aggregated file was created with data in the form of school means for all the variables. The reliability (Cronbach's alpha) of all scales measuring all variables in our model were calculated on all the constructs. SPSS-X was used to aggregate data to the school level and to calculate means, standard deviations, percentages, and path coefficients. To calculate scale scores at the schcol level, item means were calculated for valid responses to items. Subsequently, item means were summed. By this process, maximum use was made of all available information and complete data sets were available at the school level for all independent variables.

Path analysis was used to analyze the relationships among leadership, process and outcome variables because it provides a method of testing the validity of causal inferences for pairs of variables while controlling for the effects of other variables. In addition, path diagrams provide heuristic portrayals of systems of relationships which are well suited to the nature of the school restructuring model guiding this study.

Data were analyzed using the LISREL VI analysis of covariance structure approach to path analysis and maximum likelihood estimates (Jöreskog & Sörbom, 1981). Using LISREL, path models can be specified and the influence of exogenous variables

corresponding to independent constructs on endogenous variables (influenced by other variables in the system) corresponding to dependent construct can be estimated. Parameters (regression coefficients) can be estimated to assess the extent to which specified relations are statistically significant. Limitations on the meaningfulness of parameters are offset by the extent to which models can be shown to fit the data. A given model is said to fit the data if the pattern of variances and covariances derived from it does not differ significantly from the pattern of variances and covariances associated with the observed variables.

Case Studies

Six case study schools were selected from four districts on the basis of their reputation as schools making good progress in implementing the program. Three of the schools were in the year one study and the remaining three were new to this research. All schools had been designated as lead schools and were in their second year of implementation.

Two researchers spent a day in each of the six schools. One researcher interviewed four of the primary teachers involved in program implementation and the other researcher interviewed the principal using two different interview schedules: a retrospective interview to examine his/her thinking and problem-solving processes, and a semi-structured interview on the change process within the school. Both instruments were adaptations of instruments developed for these purposes for year one. Teacher interviews and the second principal interview were similar; both were structured around the constructs also addressed in the large-scale survey. Teacher interviews took approximately an hour and the principal interviews took about two and a half hours in total. The 36 interviews were audio-taped and later transcribed for analysis.

Transcripts from the interviews were analyzed using a procedure adapted from the work of Miles and Huberman (1984) on qualitative analysis. A causal network and accompanying text narrative were developed for each school. After some initial training, five-person teams of analysts (graduate students) were each assigned the data for one school, giving each team five interviews to analyze. Four different types of matrices were constructed for each interview respondent and then used as the basis for developing composite matrices for each school.

After all school matrices were completed, analysts reviewed them to identify antecedent, mediating and outcome variables; this led to the production of a comprehensive network variable list. Analysts then returned to their school matrices and developed causal network fragments to test their assumptions about the relationships of these variables to each other. Gradually, these fragments were synthesized into causal networks representing the change process in each school.

In order to ensure the reliability of the causal networks, the researchers met with the teams of analysts biweekly to monitor progress, to ensure consistency of analytic procedures and to provide additional training. After the teams of analysts completed their work one of the researchers reviewed each set of transcripts against each causal network and made revisions. These revised networks and accompanying narratives were returned to the appropriate school principal for feedback in preparing final networks.

Following completion of the causal networks for each case school we reviewed the networks to identify common patterns across the cases. Although the causal networks were unique to each case, most of the variables were common across cases and many partial relationships, or causal fragments, were similar. Similar fragments were used as a starting point for developing a "smoothed" network (not reported here) that reflected

relationships that appeared in the six cases. The result was a prototype network rather than a replication of specific networks. None of the networks are an exact fit for the prototype, but all share some of the relationships depicted. Also produced were smoothed causal fragments focused on variables linking between leadership practices and In-School Processes and Organizational Outcomes. These fragments are the primary qualitative data reported in this paper. All principals in the six case schools demonstrated forms of leadership with substantial transformational content.

Results

Findings of the study are reported in two stages. First, the results of LISREL analysis applied to the five composite constructs in the school restructuring model are reported. Second, two more detailed versions of our model are tested using LISREL in combination with the results of case study data. The purpose of this second stage is to show more precisely the extent and nature of the effect of leadership practices on specific In-School processes and on Organizational Outcomes.

Reliabilities of the scales making up the survey measuring all variables in the school restructuring model were calculated using Cronbach's alpha. As a rule of thumb, we considered scale reliabilities above .80 to be very acceptable and reliabilities above .60 to be adequate. Six of the eight leadership scales had reliabilities above .80 (using the school as the unit of analysis); two were above .70. The Student Outcome scale was .90. Four of the five scales measuring organizational outcomes had reliabilities of .70 or greater: the policy and Organization Outcome scale was unreliable. All five scales measuring In-School processes had reliabilities between .71 and.81. For the three Out-of-School process scales, reliabilities were .74 (community), .67 (district) and .48 (Ministry).

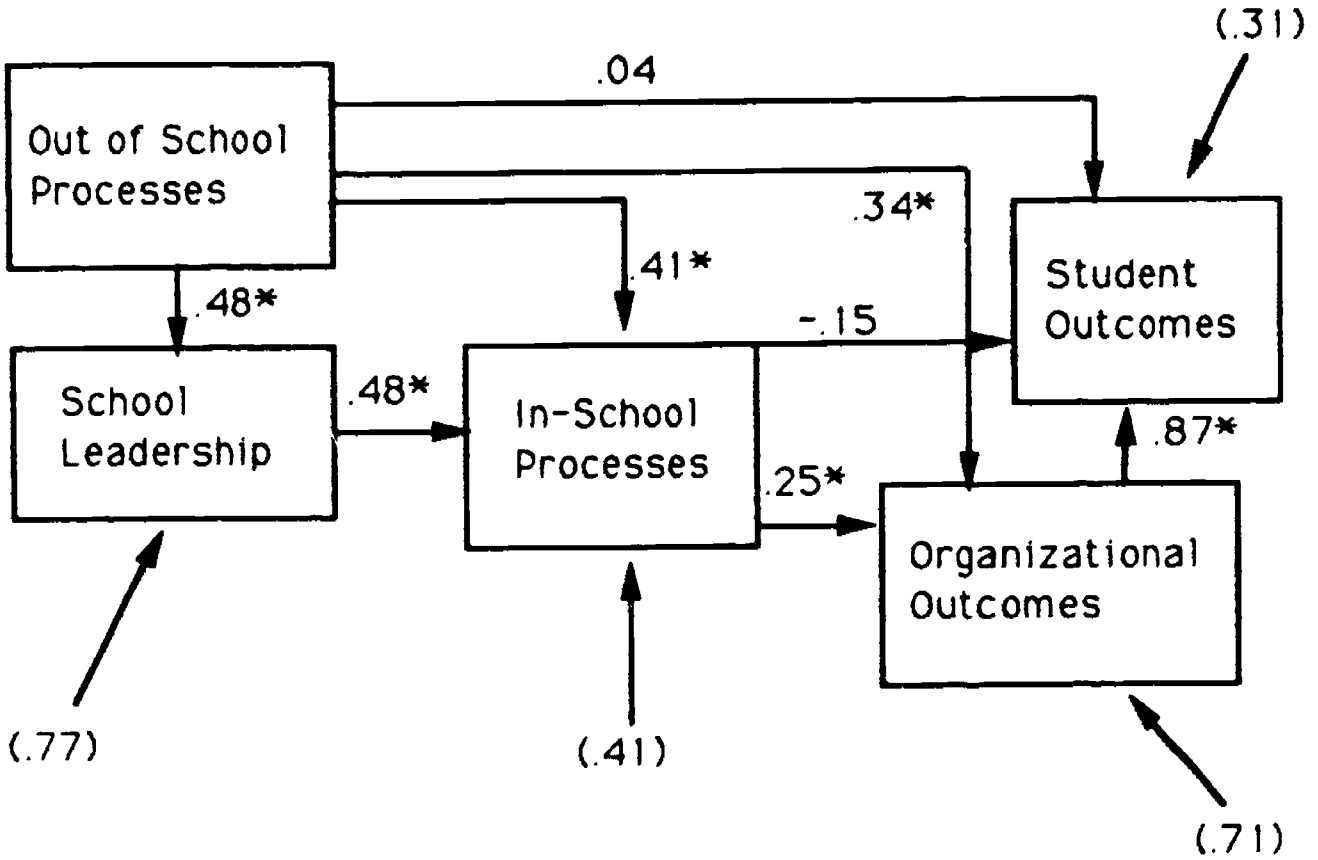


Figure 1: Relationship among constructs in the school restructuring model

A Test of the School Restructuring Model as a Whole

Figure 1 describes the strength of the relationship among constructs in the school improvement model: the chi-square coefficient (2 degrees of freedom) is 0.05, the probability level 0.977 and the adjusted goodness of fit index .999 (an excellent fit). All relationships are significant, except for the direct relationship between in-school processes and student outcomes (-.15) and between Out-of-School Processes and Student Outcomes (.04). These results show strong effects of leadership on In-School processes (.48). Such processes are significantly related to Organizational Outcomes which, in turn, strongly influence Student Outcomes. While Out-of-School Processes have no direct effects on students, they do have significant effects on School Leadership (.48), In-School Processes (.41) and Organizational Outcomes (.34). These data also suggest quite similar levels of influence on Organizational Outcomes of Out-of-School as compared with In-School processes.

Turning to the direct effects on School Leadership, Figure 1 indicates that Out-of-School Processes account for 23% of the variance (unexplained 77%). Together, Out-of-School Processes and School Leadership explain 59% of the variance in In-School Processes (41% unexplained). Twenty-nine percent of the variance in Organizational Outcomes is explained by the combined direct effects of In-school and Out-of-school processes (unexplained .71). The direct effects of Organizational Outcomes explains more than 69% of the variance in student outcomes (unexplained 31%).

School Leadership and Specific In-School Processes

Considerable prior evidence supports the claim that school leadership effects on students are indirect. Our model hypothesizes two sets of variables mediating the effects of School

Leadership - In-School processes and Organizational Outcomes. Using results of the LISREL analysis, this section explores in more detail the strength of the relationships between School Leadership, as the independent variable, and each of the five In-School process variables (school goals, culture, teachers, curriculum and instruction, policies and organization) as dependent variables.

Figure 2 displays the results of LISREL analysis assessing how well our model fit the data under this condition. The chi-square coefficient (13 degrees of freedom) is 23.46, the probability level 0.036 and the adjusted goodness of fit index .931 (a good fit). Significant direct relationships are evident between School Leadership and school goals (.34), school culture (.50) and policies and organization (.23). School Leadership has indirect influences on teachers through school culture (.63) and on programs and instruction through school goals (.23). Only the relationship between teachers and organizational outcomes is significant: according to this model, the path from School Leadership to Organizational Outcomes "funnels" through teachers who are themselves influenced indirectly by School Leadership. Overall, the combined direct and indirect effects of school leadership are strongest on school goals, school culture and teachers. Combined effects on programs and instruction and policies and organization are relatively weak.

Figure 2 suggests that Out-of-School processes compliment School Leadership. Except for school culture, which they also influence directly, Out-of-School processes directly influence policies and organization (.50) and teachers (.26). As compared with School Leadership, the combined effects of Out-of-School processes on all In-School processes are strong. School Leadership and Out-of-School processes together explain about half the variation in the specific In-School processes.

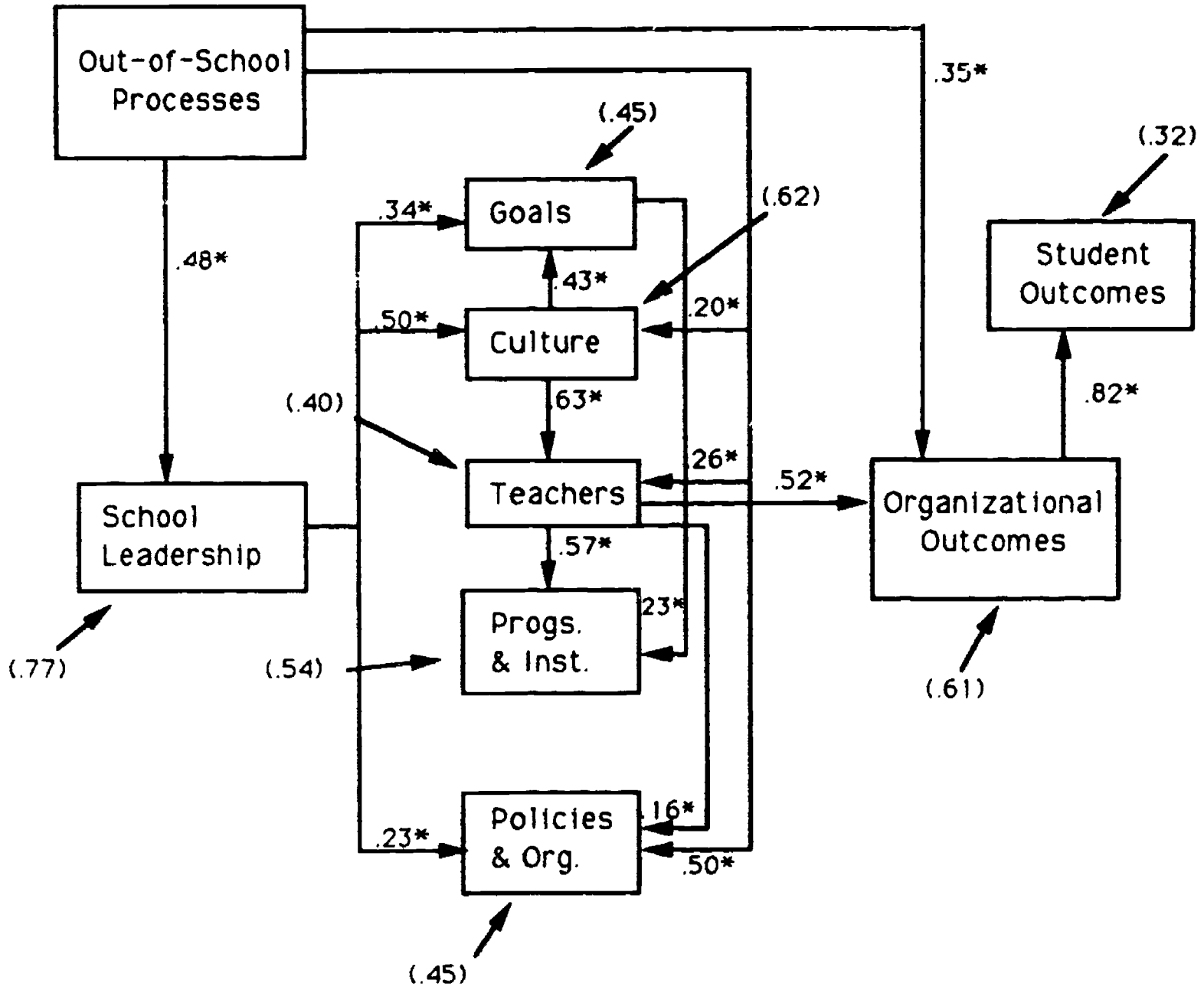


Figure 2: Relationships between school leadership (a composite variable) and specific in-school processes

The second stage of our more detailed exploration of leadership effects is reported in Figure 3. This Figure summarizes results of examining the effects of separate dimensions of transformational and transactional leadership on each of the five In-School processes. The adjusted goodness of fit index obtained for this model was .893, with a mean square residual of .026 (chi-square with 26 degrees of freedom 4.6.01 (probability level = .009). This marginal fit can be improved to a more respectable .911 (chi-square 36.51, probability level .064) by freeing the direct effect of school culture on student outcomes in the model. This produces a significant but cryptic (-.12) result. School culture contributes positively and strongly to school and student outcomes through its effect on teachers, but negatively directly.

Figure 3 illustrates those aspects of leadership that have the most influence on internal school processes in our model: vision, intellectual stimulation, fostering group goals, providing support, management-by-exception and high performance expectations. Vision and fostering group goals have the strongest influence on school goals and school culture and through this path on teachers and subsequently school outcomes.

Three leadership dimensions impact on policy and organization: intellectual stimulation, providing support and management-by-exception. The influence of the latter, particularly, seems to support an encouraging but less intensive role for the principal (or leader). High performance expectations impact weakly but positively on program and instruction.

Figure 3 provides information only about the impact of School Leadership on In-School Processes. A model (not diagrammed here) examining the independent impact of leadership and Out-of-School processes on Organizational Outcomes, mediated through In-School processes, also was tested (a chi-square = 29.85; 29 degrees of freedom, probability level = .421, adjusted goodness of fit

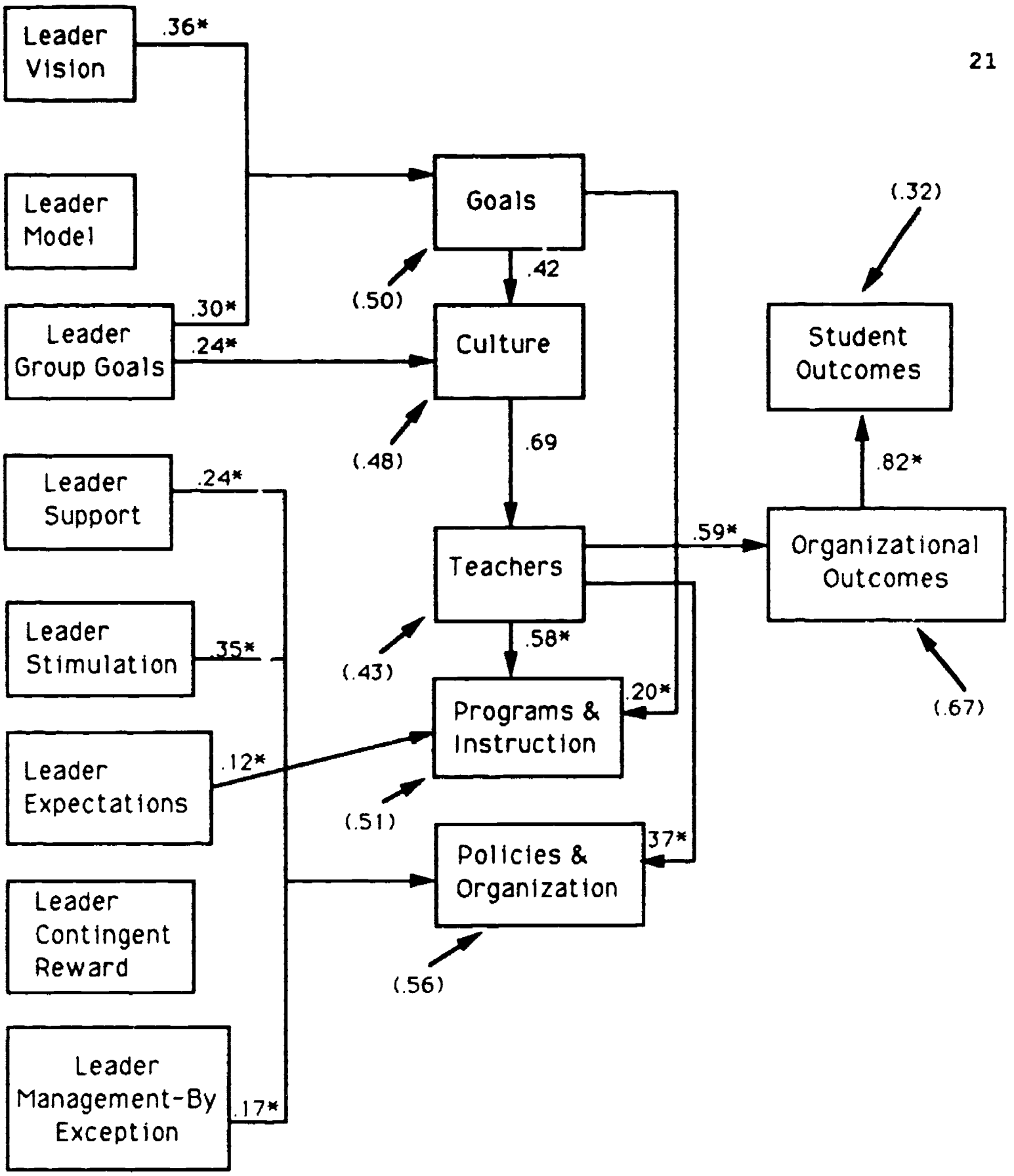


Figure 3: Relationships between specific dimensions of school leadership and specific in-school processes

= .926). This model revealed the dominance of Out-of-School processes over School Leadership on In-School processes and on Organizational Outcomes. The strongest influence on all categories of the In-School processes came from the school community.

School Leadership, In-School Processes and Organizational Outcomes

Detailed knowledge about the strength of relationship, as reported in the prior section, provides description about where to look for leadership effects but says little about how those effects are created. In this section, causal fragments developed from the six case studies are used to trace the effects of leadership through in-school processes to organizational outcomes.

Features Common to the Chains Linking Principal's Leadership

Figures 4 and 5 display chains of variables linking the principal's leadership to five different sets of organizational outcomes. These chains have in common, however, variables we have labelled "Delegation of Leadership" and "Collaborative Decision-Making". The relationship among these variables is also common. That is, principal's leadership encouraged school staffs to engage more collaboratively in school and classroom decisions not only directly but indirectly, as well: indirect encouragement always took the form of delegating authentic leadership responsibilities to the primary staff as a whole or to a representative group of the staff. Such delegation necessitated collaboration among those given direct leadership responsibility. But those with the delegated leadership also involved other peer staff members in their decisions. This may have been easier for them to do than for the principal for several reasons: for example, more frequent informal contact with their peers; less social distance from their peers; greater perceived appreciation by teachers for the point of view from their peers; less perceived risk by peers of their

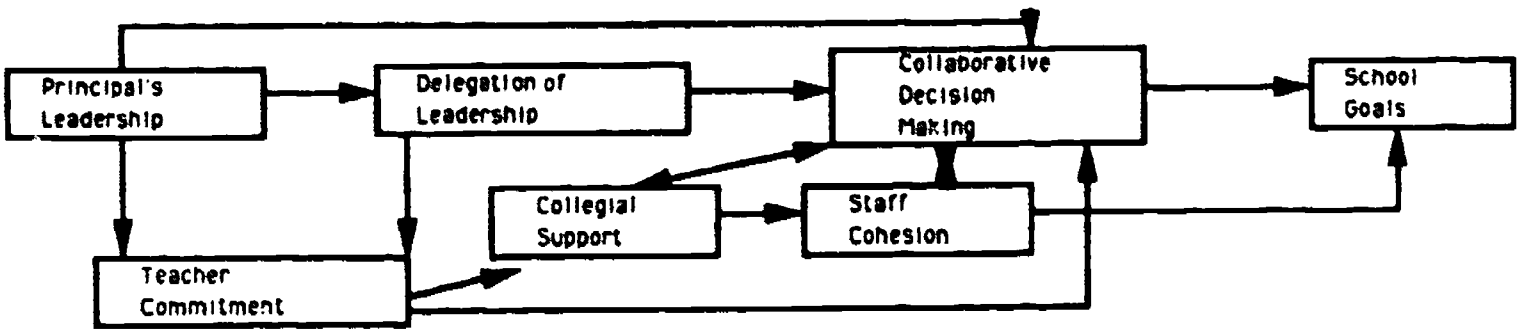
contributions being judged negatively. Whatever the reason, collaborative decision-making was a pivotal link between principals' leadership and all organizational outcomes: furthermore, it contributed directly to achieving three sets of organizational outcomes - goals, teacher development activities and policies and organization.

Features Common to the Chains Linking Principals Leadership to Goals, Culture and Teacher Development Activities

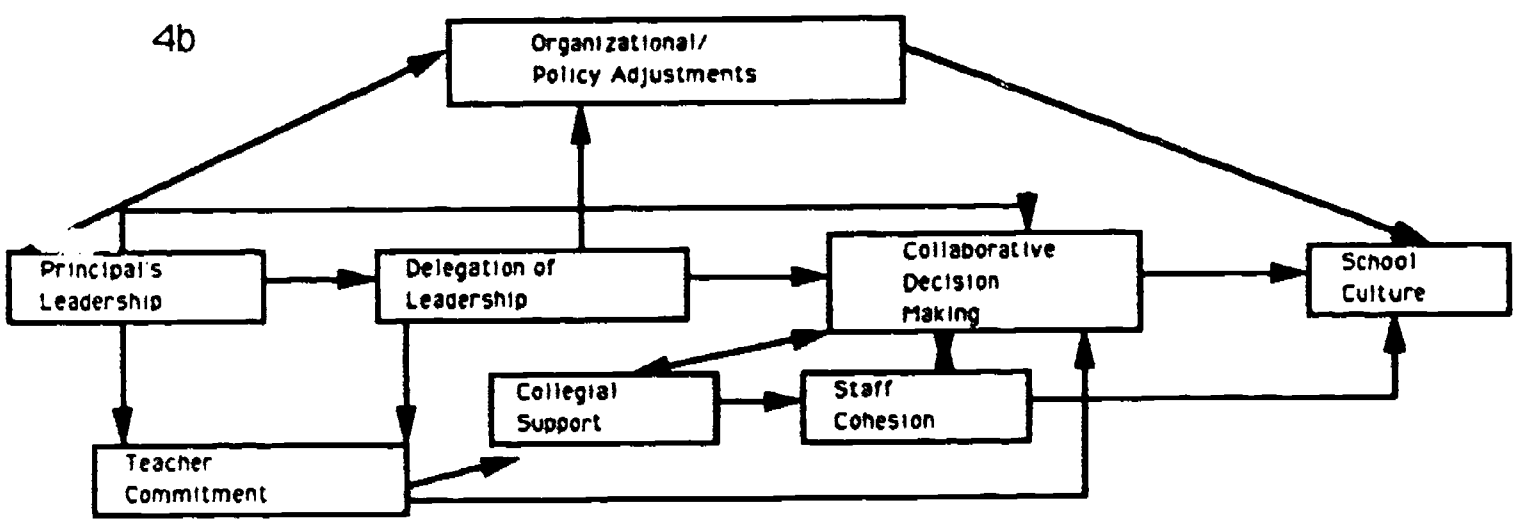
In addition to Delegation of Leadership and Collaborative Decision-Making, causal fragments describing links between Principals' Leadership and (a) school goals, (b) school culture and (c) teacher development activities have three other variables in common (see Figure 4). These variables are Teacher Commitment, Collegial Support and Staff Consensus. In each case their relationships are similar; teacher commitment is fostered directly by principals' leadership and further enhanced by the delegation of leadership (these are not the only sources of teacher commitment, however). Such commitment helps create a willingness to collaborate in school decision-making and to be more supportive of one's teacher-colleagues. Greater cohesiveness among staff members is one product of collegial support and interacts with staff's willingness to collaborate in decision-making. Greater staff cohesiveness also has direct, positive effects on the development of consensus about school goals and commitment to pursue them, as well as on the nature and form of the school's professional (teacher) culture.

As Figure 4(b) indicates, more productive types and forms of school culture are also products of organizational and policy adjustment made directly by the principal (e.g. creating committees for particular tasks, finding meeting time for teachers). Figure 4(c) also indicates direct intervention by the principal, in this case to ensure the availability of needed

4a



4b



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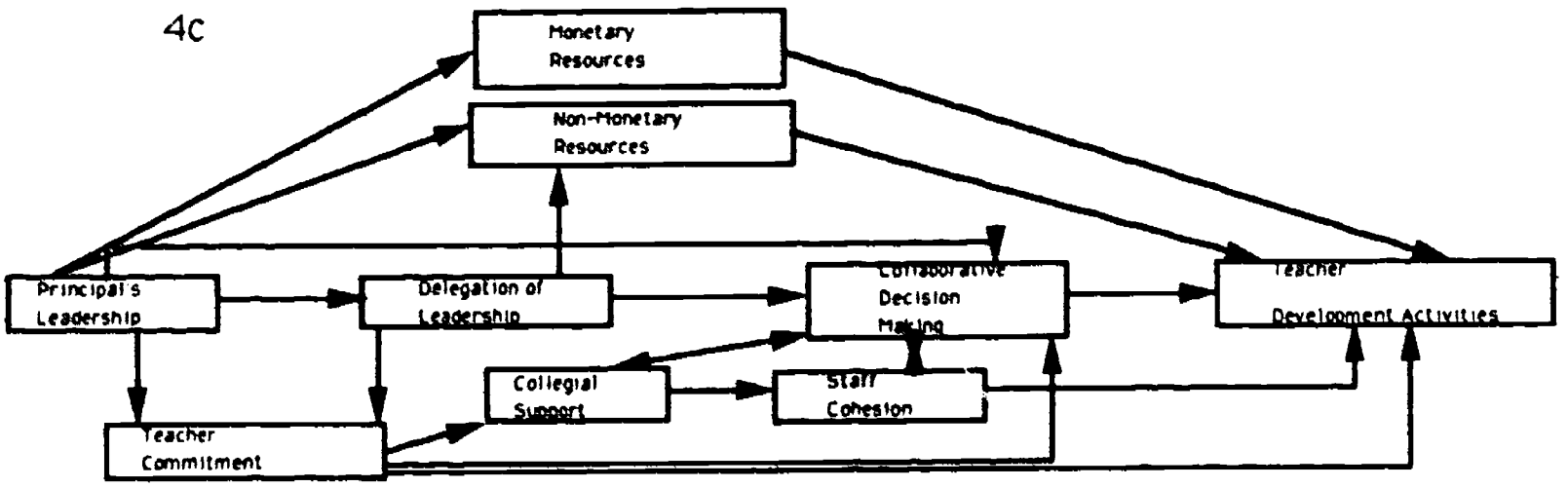


Figure 4: Variables and relationships linking Principal's Leadership with (a) School Goals, (b) School Culture, (c) Teacher development activities

monetary and non-monetary resources to foster teacher development activities.

The Links Between Principal's Leadership and Programs and Instruction and Policies and Organization

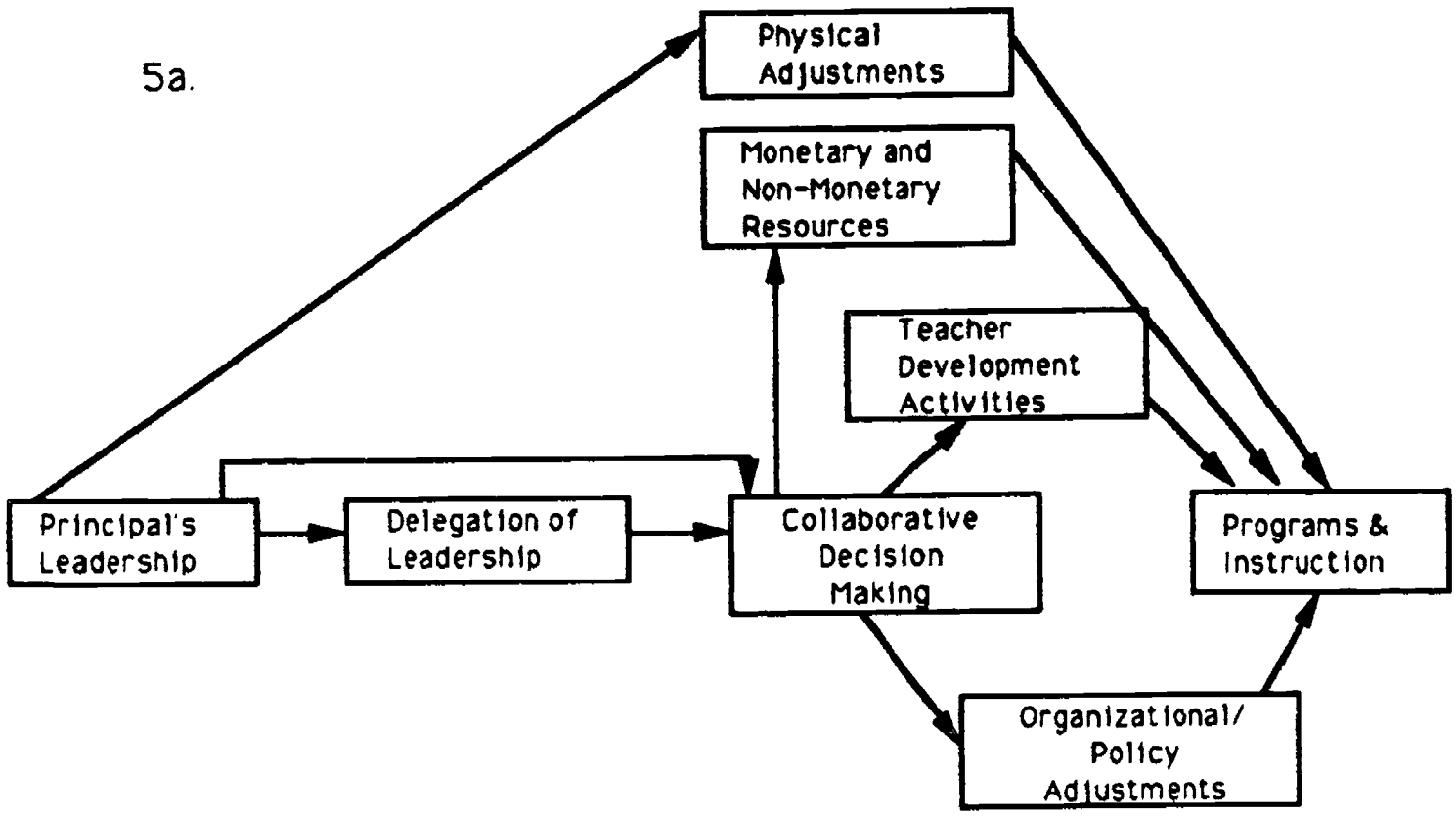
As Figure 5(a) illustrates, changes in Programs and Instruction are the direct result of four variables: adjustments in policy and organization (e.g. revised curriculum guidelines); teacher development activities (e.g. about how to teach math for understanding); various types of resources (e.g. new math manipulatives); and physical adjustments to the school or classroom (e.g. opening up adjoining classrooms to permit team teaching). All of these variables, with the exception of physical adjustments, spring from the staff's collaborative decision-making.

Figure 5(b) further unpacks leadership influences on changes in policies and organizations. Not only are they influenced directly by collaborative decision-making, they also result from modifications to school goals and changes in programs and instruction. Often, changes in policies and organization depend on additional resources which, in the six schools, tended to become available through direct intervention by the principal.

Summary and Discussion

The purpose of our study was to learn more about the characteristics of School Leadership which contribute significantly to the restructuring of schools. British Columbia's Year 2000 policy, in particular, efforts by schools to implement aspects of that policy concerning the first four years of school (the Primary Program) provided the context for the research. A prior study in the same context resulted in the multi-level model of school restructuring processes (Leithwood, Jantzi & Dart, 1991)

5a.



5b

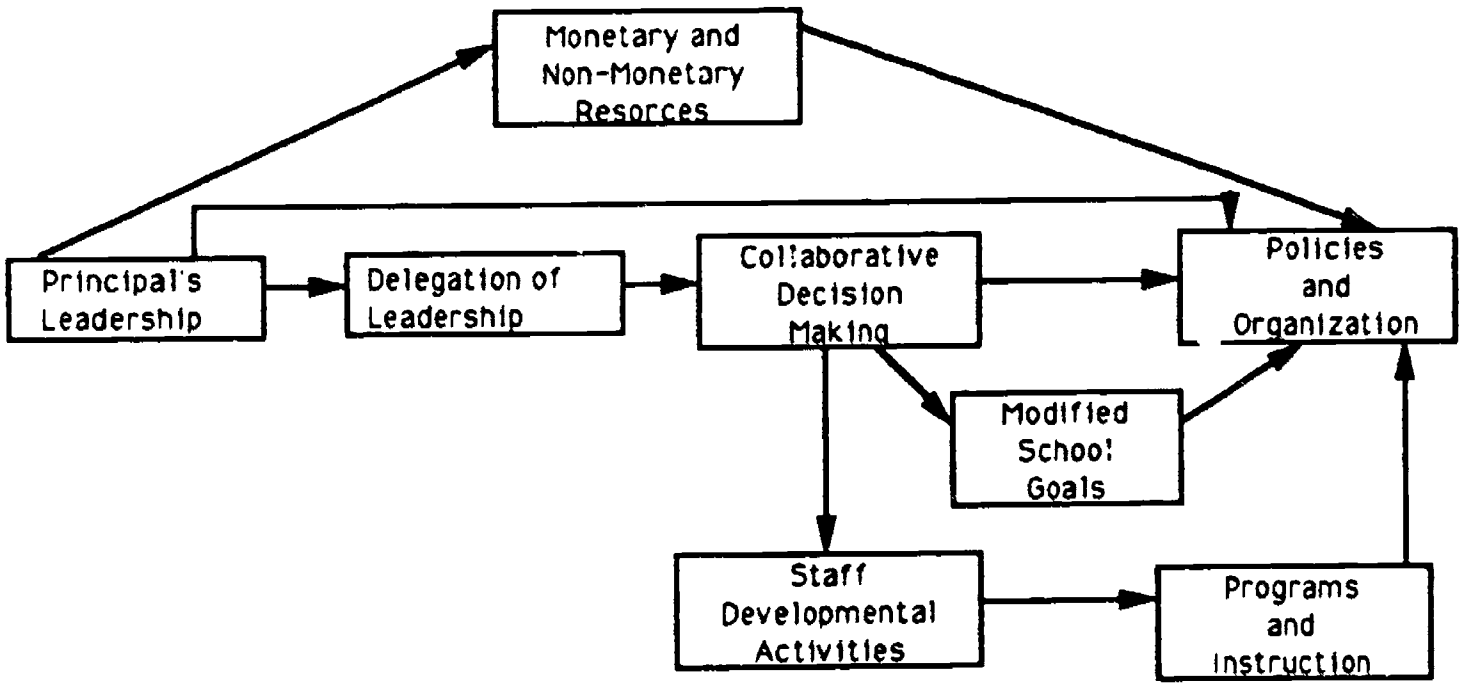


Figure 5: Variables and relationships linking Principal's Leadership with (a) Programs and Instruction and (b) Policies and Organization

used to guide the current study. This model consists of five constructs (and the relationships among them); Out-of-School processes, In-School processes, School Leadership, Organizational Outcomes and Student Outcomes. Tranformational and transactional conceptions of leadership were used to operationally define the School Leadership construct.

Quantitative data consisted of responses to a survey by 770 teachers and administrators from 272 schools. LISREL analyses (Jöreskog & Sörbom, 1981) were carried out to test how well the school restructuring model as a whole fit the data, and to explore questions about the effects of transformational and transactional dimensions of school leadership. Case studies of six "lead" schools implementing the Primary Program provided qualitative data for the study. These data were used to construct causal fragments (Miles & Huberman, 1984) describing the links between School Leadership, specific In-School processes and specific Organizational Outcomes.

One clear finding from our study was that School Leadership does not have significant direct effects on student outcomes and probably not on Organizational Outcomes either. This claim is consistent with most recent theoretical efforts to explain leadership effects in schools (Bossert et al, 1982; Pitner, 1988; Leithwood, Begley & Cousins, 1991) as well as in non-educational organizations (Yukl, 1989). Hallinger, Bickman & Davis (1990), Leitner (in press) and Van de Grift (1990) provide recent quantitative evidence consistent with such theory.

The only apparently disconfirming evidence that we are aware of has been provided in a series of studies by Heck and his associates (Heck, Larsen & Marcoulides, 1990; Heck, Marcoulides & Lang, 1991; Heck, 1991). Guided by Hallinger and Murphy's (1986) conception of instructional leadership, results of this research are claimed to demonstrate that "... the principal must now be considered as one 'school effects' variable that directly

influences student achievement" (Heck, Larsen & Marcoulides, p. 121). This discrepant conclusion, however, can be explained by the failure to include promising mediating variables in what would then be a more defensible, theoretical model. It simply does not make any conceptual sense to suggest that such principal behaviours included in this research as "providing incentives for teachers", "identifying teacher in-service needs", "keeping faculty morale high" or "protecting faculty from undue external pressure" have direct effects on students; clearly, as Leitner's (in press) work which also used the Hallinger and Murphy (1986) framework acknowledges, the direct effects are on teachers.

A second, related finding of our study was that school leadership had a significant direct effect on In-School processes. Of the five specific variables making up the In-School processes construct, those concerning school goals, school culture and policies and organization accounted for this effect. No significant direct relations were found with teachers. Rather, School Leadership appeared to influence teachers indirectly through school culture; school culture also significantly influenced school goals directly. This finding is consistent with results reported by Leitner (in press) indicating that, especially in high performing schools, leaders' influence on teachers is indirect, through cultural linkages. Leitner hunches that in environments characterized by uncertainty, like many schools, emphasizing more direct (structural) linkages risks overconformity and rigidity on the part of teachers: it also risks teacher dissatisfaction, goal displacement and increased feeling of powerlessness. Such consequences are antithetical to the goals for school restructuring. Vanderstoep, Anderman and Midgley's (1991) data suggests that school culture predicts teacher commitment.

School leaders in our study had direct effects on school goals as well as indirect effects through school culture. Almost half of the variance in processes related to school goals is explained

by these two relationships. This confirms other evidence of leadership effects on school mission (Leitner, in press; Hallinger, Bickman & Davis, 1990). School leaders' influence on programs and instruction was indirect, through school goals: teachers had the most significant direct effects on programs and instruction.

A third result of this study worth highlighting is the aspects of school leadership which most accounted for the effects reported. Of the two major components included in the School Leadership construct, most of the effects on In-School processes were explained by transformational dimensions. Transactional dimensions had little effect. Such a finding supports Bass' (1987) conception of transformational leadership as "value-added", a view also endorsed by Sergiovanni (1990). When the goal is significant school change, transactional practices (contingent reward, management-by-exception) are of little use, although they imply a set of managerial practices likely essential for the routine operation of the school. In practice, transformational leadership is highly supportive, a quality widely associated with leadership effectiveness (Brady, 1985; Blase, Dedrick & Strath, 1986; Blase, 1989; Hoy & Brown, 1986; Sharman, 1987; Rosenholtz, 1985). This is evident in the dimensions "providing individualized support" and "providing intellectual stimulation". But it is not indiscriminant support, since "providing vision" and "fostering group goals" are also transformational leadership dimensions significantly influencing In-School processes.

Although awarded much attention in effective schools research the dimensions of transformational leadership "modelling behaviour" and "communicating high performance expectations" had weak effects in our study; the latter was not a frequent practice of those leaders of high performing schools in Heck et al's (1991) study either.

The causal fragments (Figures 4 and 5) linking school leadership to In-School processes identified two variables worth special attention because of their pervasiveness: the delegation of leadership to others and the development of collaborative decision-making processes in the school. These might be viewed as essential leadership tasks in the context of school restructuring. They symbolize the school leaders' desire to recast power relationships in the school and thereby set the stage for building teacher commitment. The salience of these variables in the repertoire of transformational leaders should not be surprising given the existing evidence of their value (e.g. Bacharach et al, 1990; Conley, 1991).

Finally, our results suggested that the Out-of-School processes construct in our model had even greater direct effects on In-School processes than did School Leadership. Furthermore, it also had significant direct effects on School Leadership and Organizational Outcomes. Of the three specific variables in this construct (Ministry, district and community) by far the greatest proportion of effect was due to the community variable, a result similar to what has been found in previous research (e.g. Leithwood, Lawton & Cousins, 1989; Hallinger, Bickman & Davis, 1990; Wimpleberg et al, 1989). Because community effects are so reliable and so strong, further inquiry about the meaning of transformational leadership, in relation to the community, would be of considerable value.

Conclusion

> Perhaps organizations are arenas of human interaction whose purpose is some kind of esthetic interweaving of differences and diversities, arenas where people come together to learn how to share, to care, to cooperate, to dream and to coproduce (Srivastva & Cooperrider, 1990, p. xvi)

Transformational leadership is a useful way to conceive of formal leadership roles in restructuring and restructured schools. The term, however, needs to be "unpacked" and operationalized considerably more before its value can be fully determined. In the literature at present the term remains closely associated with charisma (Hunt, 1991; Conger, 1989), a quality often considered relatively rare and unlikely to be developed among those not naturally in possession of it. Our study suggests that transformational effects on schools are manifest in the face of quite specific and identifiable practices that many school leaders are capable of acquiring. Rather than conceiving of transformational leadership as a rare quality, possessed only by a few, it seems more productive to view it as a set of practices, possessed in different degrees, by many.

Whether or not the term "transformational leadership" evokes an appropriate image of formal leadership in restructuring and restructured schools requires more thought. A central issue in the search for a suitable image of school leadership is our concept of future school organizations. While the concept of a restructured school organization remains fluid, if not simply ambiguous, its implied meaning is usually restricted to concerns about school governance and the empowerment of parents and teachers. While such concerns are clearly relevant, they represent only a rudimentary first step in the intellectual project of imagining the nature of post-bureaucratic school organizations. Srivastva and his associates (1990) have begun such a project within a much broader organizational context than schools. Like us, they adopt a social constructionist view of interaction within organizations. Effective leadership fosters a reperception of the organization and the growing diversity with which it must cope. Such diversity, however, is viewed as a positive stimulant to such reperception, rather than an obstacle to organizational work.

The quotation at the beginning of this section provides a glimpse of the progress being made by Srivastva and associates in their project. To capture the implications for leaders of this image of organizations, they have coined the term "appreciative leadership". This is leadership aimed at developing, nurturing and introducing high human values into organizational life:

> ... leadership that results in the most important kind of cooperation of all - the conscious cocreation of a valued future. (Srivastva & Cooperrider, 1990, p. 3)

Whether transformational, appreciative or some other term eventually seems most evocative of leadership with this purpose one thing is very clear. Our continued preoccupation with "instructional leadership", as a guiding image for school leaders, threatens to underestimate the challenge of school leaders in post-bureaucratic schools by a shocking amount. There are many school leaders who already see their challenge as much more than this.

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