Public school administrators must develop new organizational structures to meet declines in expenditures, enrollments, student performance, and staff motivation. In doing so they must be sure to coordinate changes at the organizational level with changes at the individual level. Development of new structures should take into account the purposes of the changes, the work technology, the organization's stage of development, and the surrounding culture. Structural changes at the organizational level, which can improve public schools' performance by applying limited resources where they are most effective, should include greater school decentralization, more subunit integration, and increased flexibility in reward structures, authority roles, and teacher roles. One way to increase flexibility is through team building. At the individual level, structural change should involve enrichment of teachers' jobs. To motivate teachers toward responsibility and achievement, job enrichment must ensure job variety, teacher autonomy, frequent feedback, and teacher identification with educational tasks. More research is needed to illuminate the effects of public school organizational change on student performance and teacher motivation. Further, in seeking organizational and individual change, school leaders will have to be open-minded and aware of circumstances supporting or retarding change. (RW)
STRUCTURAL RE-ARRANGEMENT:
CHANGING ORGANIZATIONAL VARIABLES,
IMPLICATIONS FOR PUBLIC SCHOOLS

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Introduction

Public school organizations today are experiencing a period of uncertainty and change characterized by political, social, and economic demands from external sub-groups. The legal issues of equal access and due process combined with the requirements for compliance with federal and state legislation have made it necessary for schools to directly alter existing operations and these problems are further compounded by the concern for declining enrollments, questions of quality of output and the public demand for tax relief. Faced with conditions which require the development of more responsive and adaptable policies and structures, the schools appear to have moved toward a position of retrenchment.

The limitations placed on school organizations resulting from reduction in size and expenditures has focused attention on the quality of instruction. With fewer teachers entering the system, the impact of preservice education has diminished and school officials are confronted with problems of staff motivation and performance.

Recognizing the complexity of problems facing the schools and considering the multiple forces impinging upon the internal organization,
it is apparent that educational leaders need to develop techniques for
diagnosis and intervention which utilize behavioral science theory and
which are linked to long range planning and development activities.

A Rationale for Change

In considering change or development strategies, school
organizations need to establish an adequate framework for dealing with
the purpose of change. This framework should evolve around some basic
questions. What is the current state of the organization? What is the
desired output or expected level of organizational functioning? How do
we make the connection between the desired state and the preferred
state? A plan of action which leads to change should begin with a clear
perception of what needs to be done to arrive at the transition from
present to desired states.

In attempting to deal with issues of performance and output,
school administrators need to examine the nature of the work technology
while formulating targets for improvement. Interventions aimed at
improving motivation and performance should include an analysis of the
existing social system and school culture as well as an understanding of
significant environmental demands. Further, the appropriateness of the
change strategy should be linked to the relative stage of development
which characterizes the present organization. Among the conditions to
be considered at the point of entry are member level of maturity and
experience relating to performing specialized tasks. The recent research on change suggests that organizations should avoid a one best approach strategy and should focus on securing a better fit between stage of development and the approach to change.

Organization Design and Structural Change

In reviewing individual change theories, it is apparent that a multi-dimensional approach to school improvement is appropriate. Specific aspects of participation, expectancy, feedback, cognitive learning, and modeling can be utilized in attempts to improve outputs. In order to arrive at a strategy which provides both direction and a foundation for these individual approaches to change, it is helpful to consider the effects of structural alteration and design changes.

Organizational structure refers to aspects of size, number of echelons or levels, flow of authority, allocation of human and material resources, integration, role responsibility, task analysis and communication flow. Public schools are generally characterized by traditional lines of authority, fragmented operations, vertical communication patterns and an inability to respond to external demands. Schools have been referred to as domesticated organizations because of an absence of choice between clients and organization. This condition tends to result in less adaptive and responsive organizational functioning.
The changing of structural variables can have a system wide effect and provides impact at the organization group level.

Structural change constitutes foundation building. It enables educational managers to control organizational variables and places managers in a more proactive stance. Adaptation through changes in design arrangements, lines and levels of authority, decision making patterns and individual role dimensions provides an administrator with the opportunity to create conditions for renewal at the individual/group level.

Structural changes and alteration of such organizational variables as rewards and role influence, should be integrated with complementary aspects of interpersonal development. A major problem which schools must deal with is performance related. At the focal point of learning outcomes and service delivery is the motivation and behavior patterns of teachers and building administrators. Approaches to change related to effectiveness should be linked to individual motivation and school organizational climate factors.

The potential benefit which structural change offers in schools can be significant for both the individual and the organization. Administrators exercise control over the critical aspects of allocation and placement of staff. The movement of personnel and resources to areas of highest need (elementary and early childhood) can, therefore, result in meaningful
change in performance. Further, placement of individuals in roles most suited to skills and interests can reduce need for retraining and staff development. (Some English teachers may be more effective in community outreach programs and others may relate better to low achievers than to gifted students). Structural environmental changes in such instances may be more effective than attempts at changing individuals.  

Schools can also take steps at moving away from the traditional, mechanistic form of organizing by creating structures which are more decentralized and organic. The Burns and Stalker model has application to schools existing in uncertain, changing environments. The choice of organizing mode (division of labor, configuration, distribution of power, and decision mechanism) is formulated on the basis of achieving responsiveness and maximum resource utilization, rather than on control and efficiency. While school system re-organization is a common practice, it is not often a move toward an organic design. Further, any structural re-organization should be accompanied by individual change approaches such as participation, cognitive learning, expectancy, and selective reinforcement. Changes in hierarchical levels can be supported by individual skill, attitude and value development.  

The fragmentation of school system operations, highlights the need to place emphasis on process and functions such as personnel management, budget management, and instructional leadership.
This process should be supported by the establishment of connecting links or boundary spanners. The differentiation/integration model can be a useful diagnostic tool when studying school organizations.\(^3\) In schools, it is important to support differentiation as a response to specialization and external demands. Increasing the level of differentiation enables schools to make better use of expert knowledge and encourages sub-unit differences in time and goal perspective. Further, while schools have made efforts to increase differentiation, they have not been effective in improving integrative functions. In areas where interdependencies exist (special services, instruction, curriculum development and budgeting) provisions need to be made for integrative mechanisms. In this instance, structural change consists of designing linking pin arrangements or creating roles for integration specialists or boundary spanners. Resource specialists act as consultants to teachers while maintaining a commitment to school organizational goals established by the administration.

Research from field studies using differentiation/integration concepts suggests a relationship between secondary schools' level of integration and climate factors which relate to achievement motivation. Factors such as responsibility, risk, reward, and conflict acceptance may be enhanced by the existence of cluster and team arrangements as well as integrative specialists.
Integration of subunits and role relationships takes on considerable importance when assessing a school's ability to respond to such external demands as state curriculum standards or desegregation mandates. Further, the problems of matching methods to individual student needs are often more effectively accommodated through collaborative efforts of teachers and support personnel.

Traditionally, the reward structure and the relationship of roles and lines of authority within the schools act to limit the flexibility of teachers' roles. Lortie characterized the teachers' press toward core classroom teaching activities as an organization "centrifugal" effect. Teachers respond to the traditional reward and structural demands by moving away from organization and school wide dimensions of their jobs and become immersed in individual classroom routines. The separation between teacher classroom focus and administration preoccupation with organizational issues tends to produce conditions which work against the formation of synergistic relationships. This variable zoning effect serves to limit teachers from adopting a broader view of school goals and acts to restrict collaboration where the potential for interdependencies exist.

As a partial response to the traditional state of teacher work technology and this variable zoning effect, efforts at team building have produced interesting modifications in school structure and operation.
The concept of team building has been most widely adopted at the instructional level where cluster or team arrangements have changed the dynamics of teacher student interactions while helping to promote teacher collaboration. One formal system of learning which places emphasis on structural change is the Individually Guided Educational Program. ICE changes a number of organizational variables. The traditional self-contained classroom is replaced by instructional units consisting of four teachers, an aide and approximately 100 students. The resulting activities and programs constitute a considerable change in the role dimensions of teachers including expansion of school governance responsibilities.

While the linkages between intervention and output are sometimes hypothetical, there is evidence that the ICE type structure fosters changes in member motivation and behavior. Research reveals that ICE type structures tend to produce gains in student self concept, independent behavior, and some areas of skill development. The relationship between IGE structure and teacher satisfaction level offers further encouragement for team building activities.

**Focus on the Individual**

Within school organizations changes in lines of authority, communication patterns, decision mechanisms, team arrangements and role relationships represent development strategies at the organizational/group level. Structural interventions may also be targeted at the individual/organization level.
Job enrichment represents this type of structural change approach. Job enrichment incorporates analysis of task and work technology with an assessment of the social and psychological needs of the individual worker. At the core of job enrichment intervention is a desire to improve the fit between organizational objectives and member needs and abilities. Most enrichment activities have been developed in industrial settings with particular emphasis on production line workers. There are, however, specific features of job enrichment which are applicable to the public schools.

An earlier reference was made to conditions within the teaching profession which arouse concern for individual motivation. In schools the absence of reward systems which differentiate performance and the lack of upward mobility or vertical movement have compounded the problem in recent years. It is useful to look at this growing number of veteran teachers in terms of Herzberg's two factor theory. Herzberg postulates that needs can be defined in two categories, hygiene and motivation. Hygiene factors are often avoidance motives: they enable a teacher to avoid loss of tenure or the sanction of a poor evaluation. Motivation factors are intrinsic in nature and consist of activities which promote responsibility, risk taking, and achievement. These factors, according to Herzberg, contribute to satisfaction and they constitute the motivation and rewards an individual seeks for increased performance.
Assuming that teachers are inclined toward either hygiene or motivation motives, administrators need to consider the conditions which stimulate motivation seeking behavior. As job enrichment activities are based largely on internal motivation factors, it is important to consider the following dimensions when changing roles.

Variety - refers to the degree that a job allows an individual to perform a wide range of operations or use varied techniques within his work. Jobs having a high degree of variety are viewed as being challenging since professionals must develop or use a wide range of skills and abilities to perform successfully. Job enlargement and enrichment activities which help to create variety include:

- Instruction of students of mixed abilities.
- Rotation of teaching assignment.
- Expansion of teaching role toward community and program activities.
- Involvement in special projects-mini grants.
- Working in instructional team assignments.
- Using diversified approach to instruction-small group, large group, independent study.

Varying the nature of a teacher's role can be a healthy change and can be accomplished through modification and shifting emphasis of existing tasks.
**Autonomy** refers to the degree to which professionals have a major "voice" in development of their role responsibilities. This includes selecting methods, procedures, and resources to be used in carrying out job functions. Activities which can be used to promote autonomy in teaching include:

- Differentiation of instructional roles—encouraging specialized functions such as resource teachers.
- Participation in planning and decision making relating to program improvement and school governance.
- Influencing selection of resources to support instruction.
- Independent pursuit of professional development.

Autonomy is particularly important to teachers' perception of the degree of control they maintain over core teaching functions.

**Task Identity** — refers to the degree which an individual can do the entire piece of work and can therefore identify the results of his efforts. Some task identity stimulators are as follows:

- Securing involvement in program development and evaluation to gain wider control of inputs and outputs.
- Piloting new projects with responsibility for implementation and assessment.
- Developing materials for instructional use.

Teachers' potential for increased motivation is stimulated when there is input into program formation and evaluation as well as instruction.
Feedback refers to the degree to which professionals secure information which tells them how well they are performing their job. Reward and evaluation factors are important aspects of feedback.

Participation in performance objective setting as well as the relative weight to be assigned to objectives.

Direct and frequent discussion of performance by administrators.

Supportive and constructive recommendations given for further improvement after feedback.

Use of praise and encouragement when appropriate.

Attachment of reward system which directly correlates with evaluation.

Feedback used to differentiate position level as part of supervision process (intern, associate, master teacher).

The style and frequency with which feedback is provided can influence the effectiveness of the job enrichment effort.

Some Considerations When Applying Enrichment Activities to Schools

1. Changing the dynamics or emphasis of a teacher's role through vertical or horizontal loading requires adjustments in other dependent or connecting roles.

2. Enriching a teacher's role may require altering the criteria for supervision and evaluation.

3. Expansion of teacher's influence in areas of program planning and evaluation suggests a need for adapting leadership style of administrators.

4. Enrichment may be strengthened by development of a complimentary reward and recognition system.
5. Activities which include clustering of teachers in units requires cognitive learning orientation and team building efforts. Team building requires continuous maintenance.

6. Job enrichment will not work for all teachers. Individuals who are highly keyed to hygiene motives may not be inclined to a change in their role.

7. Differentiation of teacher roles on the basis of competence or specialized knowledge should be tied to school wide and district goals for better staff utilization.

Structural change strategies such as job enrichment, constitute a first line, organizational approach toward influencing behavior and performance change. Individual change approaches serve to compliment and further refine structural changes. Cognitive learning and participation are essential components in the formation of instructional teams. Similarly, expectancy and modeling interventions help educational managers establish positive norms for achievement. Positive feedback and selective reinforcement are individual change approaches which can be combined to support a job enrichment structure. A multi-dimensional approach thus combines organizational and individual theories of change.

Some Recommendations for Additional Research

While there is substantive research and literature in the area of organizational design and structural change in industrial settings, there has been limited application to public schools. Educational leaders are in need of data which reveals relationships between changing organizational
variables and school outputs. At the school building level, principals could benefit from data on the relationship between alternative organizational design and teacher motivation orientation. Further, the effect of specific structural changes on teacher behavior could be explored. This could include studies of unit and team instructional arrangement differentiated roles, and the effect of integrating mechanisms on teacher motivation and performance. Differentiation/integration concepts could be applied to school building organizations existing in different environments. Research in this area could lead to alternative ways of organizing for schools operating in stable or rapidly changing environments.

Case studies or field investigations aimed at assessing the effects of job enrichment activities among teachers, could provide administrators with information for designing roles. The area of matching teacher styles to student needs rather than emphasizing retraining of personnel also merits investigation. Finally, the many uses of educational technology in relation to new models for instruction, presents educators with a new field of exploration.

**Action Planning**

In order to evaluate and test the concept of structural change approaches and combined structural/individual approaches, school districts need to cultivate a more open acceptance of non-traditional
patterns of operation. In doing this, the school leadership will need to address issues of pluralism in relation to school management and policymaking. This process is made more difficult by the competition for fixed resources in most public schools.

For the purpose of reality testing, some initial measures should be considered by administrators when considering structural change:

1. Assess existing administrative operations through a management resource inventory of the school or school system.

2. Attempt to assess the relative openness and readiness for change of critical sub-groups within the organization.

3. Analyze key areas of potential resistance.

4. Identify neutral or supportive elements.

5. Develop an implementation plan and time line for strategic pilot testing of structural change approaches.

6. Limit implementation to supportive areas in initial stages.

7. Structure an evaluation process which focuses clearly on pre-established objectives for school improvement.

During a period of limited resources, educational leaders will need to develop new structures and improve capabilities using existing resources. Significant change and organizational improvement are only possible if schools combine rationale planning with a view towards cautious optimism.
REFERENCES


BIBLIOGRAPHY


Etzioni, A., "Human Beings Are Not Very Easy To Change After All." Saturday Review, June 3, 1972, 45-47.