This paper examines the concept of effectiveness in relation to educational organizations and suggests a conceptual framework for depicting the effective public school system. The discussion focuses first on properties of the school system as an organization and their implications for effectiveness criteria. Themes in the literature on effectiveness and health are then considered as they might apply to the school system. Finally, these themes are integrated and extended in a model specific to the school system as an organization. The author concludes that (1) educational and organizational effectiveness are interdependent concepts and (2) effectiveness assessment in school systems requires an extended conceptualization of the organization and its boundaries. (Author)
THE CONCEPT OF EFFECTIVENESS AND THE EDUCATIONAL ORGANIZATION

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Introduction

One of the concepts we frequently employ when we talk about developing schools is the concept of effectiveness; most, if not all, planned change is predicated on the belief that it will result in more "effective" schools. A basic issue, however, is "What constitutes 'effectiveness' in educational organizations?" With the exception of Miles (1965) and Coleman (1972), this question has been largely ignored in educational administration.

In this paper, then, I would like to reconsider the concept of effectiveness as it applies to educational organizations. Specifically, I would like to develop a conceptual framework within which we might begin to operationalize effectiveness in public schools. To do this, I will be addressing four main issues. First, "What are the referents for a model of effective educational organizations?" Second, "What are the dimensions that we might include in such a model?" That is, what are the essential elements of effectiveness in educational organizations. Third, "How can we integrate these elements in a framework for depicting effectiveness?" Finally, "Given the properties of public schools, what are the implications for operationalizing effectiveness?"
Referents for a Model of Effective Educational Organizations

When one attempts to conceptualize effectiveness in educational organizations, he is immediately faced with two possible referents. Schools are not just organizations; they are organizations responsible for educating. Thus, schools may be viewed as both educationally and organizationally effective. When we speak of an effective educational organization, then, to which do we refer?

Raising this question may suggest that I see a need to distinguish or choose between two types of effectiveness. That is not my intention. In fact, I would argue that we should not view the two as mutually exclusive. Unless a school achieves some degree of effectiveness as an organization, I doubt that it can be very effective from an educational point of view. I do raise the issue, however, to point out that when we consider effectiveness in public schools we must accommodate both referents.

To develop a model, then, let us consider the potential meanings of both educational and organizational effectiveness. Doing this necessitates separating the two, at least initially, so that we can inquire into the essential elements of each. Once we have done so, then I think we will be in a position to reconsider whether these elements represent two independent models, or, instead, constitute an interdependent set of dimensions for a single framework.

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1 I am indebted to Roger I. Simon for this among many insights I gained from our discussions about effectiveness in schools.
Educational Effectiveness

The most common basis for measuring effectiveness in schools is probably the attainment of educational goals and objectives (at least in degree). Unfortunately, this is all too often the only basis. Frequently, too, educational goals and objectives are limited to cognitive and affective learning outcomes. Witness, for example, the much used Taxonomy of Educational Objectives (Bloom, 1956). If we are going to develop a useful model of effectiveness in public schools, I think our conceptualization of educational effectiveness needs to be extended in at least two ways. The first way we can extend our conceptual base is through the dimensions we employ in defining effectiveness. In addition to educational goal attainment, for example, I would suggest at least three other elements that we might include in our framework.

The first of these is the appropriateness of the educational goals pursued in schools. Can a school be effective if the goals it pursues are neither relevant to the needs of its constituencies nor attainable, to some degree, given its resources? The arguments of Miles (1965) and more recently Bereiter (1972) suggest that it cannot. What makes a goal appropriate, however, are the educational needs of those for whom the efforts of a school are intended. Fulfilling the educational needs of the school's constituencies, then,
is a third dimension we might include in developing our model. Finally, I think we need to consider that a school cannot meet educational needs or pursue appropriate goals unless these goals are clearly specified. The importance of goal clarity has been underscored by Miles (1965), Sieber (1968), Warner and Havens (1968), Coleman (1972) and others. It is also well documented in Smith and Keith's excellent case study (1971) of an attempt to develop a new school. A fourth dimension to include in our model, then, is goal clarity.

A second way we can extend the conceptual base for operationalizing educational effectiveness is through the range of educational goals we include in our model. As I mentioned earlier, the measurement of goal attainment is all too often limited only to learning outcomes. We might ask, What is a valid educational goal? Certainly we cannot ignore learning outcomes. At this same time, we cannot ignore the fact that there are other educational goals pursued in schools. Examples of these goals refer to: (1) individualizing curriculum and teaching methods, (2) creating alternative learning environments, (3) matching students, teachers, and learning environments, (4) creating new roles and role relationships among students, school personnel, parents, and community members, and (5) changing and improving the educational process and technology.
If these are valid examples of educational goals, then they suggest that a model of effectiveness in public schools must accommodate the pursuit and attainment of different types of educational goals. One type might refer to the production of certain outcomes. A second type might refer to changes in the process through which this occurs. A third might refer to changes or improvements in the social system in which this occurs.

Summary of the Educational Elements for an Effectiveness Model

I would argue, then, that our conceptual framework of effectiveness in schools begin with at least four dimensions. These are: (1) Clarity of Educational Goals, (2) Appropriateness of Educational Goals, (3) Attainment of Educational Goals (at least in degree), and, finally, (4) Fulfillment of Educational Needs. I would also argue that "educational goals" be specified within a range of outcomes. This range might refer to changes in the processes through which learning is facilitated and changes in the social system in which it is facilitated as well as to conventional learning outcomes.

Organizational Effectiveness

I would like to turn now to a consideration of the dimensions of organizational effectiveness that might be included in our model. Doing so involves reviewing a fair amount of literature that has been written on the topic.
Within this literature one finds various criteria reflecting at least four different models or perspectives in organization theory.

The first of these is what Etzioni (1960, 1964), and Yachtman & Seashore (1971) refer to as the "goal model". Organizations are viewed as rational instruments constructed for the attainment of specific ends. Effectiveness, in such a view, is usually based solely on goals. A second model employs the "functional" approach to organizations. Here, the main dimension of effectiveness would be the organization's performance and functional utility vis-a-vis its role in the larger social system.

A third model which has been supported by Etzioni (1964) and Yachtman and Seashore (1967) is the "system model". In this position, organizations are viewed as open systems and effectiveness is defined in terms of the organization's relationship with its environment and the degree to which its sub-parts interrelate.

Finally, a fourth model is represented among normative theories of organization, where effectiveness is defined in terms of prescriptive criteria for organizational health. Argyris (1964), Bennis (1962), Miles (1965) and Clarke (1969) present viewpoints that rely, at least in part, on prescriptive models of effectiveness.

I do not think that one can choose any one model as superior to the others for deriving the dimensions of an effective
public school. Rather, I think we need to draw on the range of dimensions represented among these. A model of effective public schools requires the integration of several elements. Let us consider, then, what some of these might be.

Five dimensions for measuring effectiveness have been suggested by Selznik. These are:

1. The security of the organization as a whole in relation to the social forces in its environment
2. The stability of the lines of authority and communication
3. The stability of informal relations within the organization
4. The continuity of policy and of the sources of its determination
5. A homogeneity of outlook with respect to the meaning and role of the organization.

Although Selznik refers to certain organizational properties and processes such as communication, relations, etc., his basic theme is that the effective organization is one which is able to maintain itself relative to both internal and external forces.

Georgopoulos and Tannenbaum (1957) define organizational effectiveness as follows:

...the extent to which an organization as a social system given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members. This conception of effectiveness subsumes the following general criteria: (1) organization's productivity; (2) organizational flexibility in the form of successful adjustment to internal organizational changes and successful adaptation to externally induced change; and (3) absence of intraorganizational strain or tension, and of conflict between organizational subgroups.
Three themes are found in their position. The first is Goal Realization, the second is Ability to Adapt (and Adjust), and the third reflects the State of Relations Within the Internal System.

Argyris has discussed effectiveness (1964) as the organization's ability to maximize its ratio of inputs to outputs while achieving three "core activities": (1) achieving objectives; (2) maintaining itself internally; and (3) adapting to the external environment. Katz and Kahn (1966) presents a similar view with emphasis upon organizational efficiency. In other statements, however, Argyris has focused primarily upon the state of the internal social system and the use of human resources.

Organizational effectiveness ... is the balanced or optimal emphasis upon achieving objectives, problem-solving competence, and human energy utilization. It may be possible, in the short run, to emphasize one of these activities at the expense of the others, but eventually all must be optimally expressed. (p. 312)

Bennis (1962) makes what is basically the same point:

If we view organizations as adaptive, problem solving organic structures, then inferences about effectiveness have to be made, not from static measures of output though these may be helpful, but on the basis of the processes through which the organization approaches problems. In other words, no single measurement of organizational efficiency or satisfaction -- no single slice of organizational performance -- can provide valid indicators of organizational health.

Bennis goes on to propose three criteria for organizational health: (1) Adaptability -- "flexibility to change" -- with
changing internal and external circumstances; (2) A Sense of Identity -- the degree of clarity and consensus about the goals and purpose of the organization; and (3) Capacity to Test Reality -- the ability to sense the environment free from idiosyncratic coding.

Schein (1965) builds upon what Bennis has proposed and goes on to specify internal system conditions:

I have tried to argue for an approach to organizational effectiveness which hinges upon good communication, flexibility, creativity, and genuine psychological commitment. . . . The argument is not based on the assumption that this would be nice for people or make them feel better. Rather, the argument is that systems work better if the parts are in good communication with each other, are committed, and are creative and flexible.

Friedlander and Pickle (1968) have utilized three effectiveness criteria: (1) System Maintenance and Growth, (2) Subsystem Fulfillment, and (3) Environmental Fulfillment. This is an interesting set of criteria in that it goes beyond specifying what the effective organization must do and discusses for whom this must be done -- the system, its members, and its consumers.

Clarke (1962) construes the "healthy" organization as follows:

. . . on balance and over time, the healthy organization is one in which its component parts -- groups and individuals -- somehow manage to achieve an optimal resolution of their tendencies toward equilibrium (maintenance, homeostasis, status quo, or call it what you will) and their capacities for growth (elaboration, complication, differentiation, negative entropy, or what you will).
There are three elements in Clarke's position that are important. First, Clarke takes the theme of need fulfillment and specifies two important yet divergent needs -- one for reactive behavior (stability) and one for proactive behavior, (growth and differentiation). Second, Clarke defines the "organization" in terms of all its components -- formal system, groups, and individuals. Finally, Clarke discusses health on a long term basis -- "in balance over time". Thus Clarke, like Argyris and Miles, suggests that effectiveness and health be viewed in both short and long term perspectives; although an organization may emphasize certain aspects of effectiveness or meet certain needs in the short-run, it must take account for all over time.

One of the major arguments of Yuchtman and Seashore (1967) is that most studies of effectiveness based on goal attainment have failed to consider the relationship of the organization and its environment as a central ingredient in the definition of effectiveness.

...most existing definitions of organizational effectiveness have been formulated implicitly or explicitly in terms of a relation between the organization and its environment, since the attainment of a goal or the fulfillment of a social function always imply some change in the organization vis-a-vis its environment. The crucial task, then, is the conceptualization of that relation. (p. 481)

Finally, Miles (1965) has presented ten dimensions of organizational health. These are: (1) Goal Focus, (2) Communication Adequacy, (3) Optimal power equalization,
(4) Resource Utilization, (5) Cohesiveness, (6) Morale,
(7) Innovativeness, (8) Autonomy, and (10) Adaptation.

Major Organizational Elements for an Effectiveness Model

Seven major dimensions for conceptualizing effectiveness appear to emerge from the literature. Given minor variations on any theme and allowing that some authors have also suggested operational criteria, these dimensions are: (1) Clarity of Organizational Purpose and Goals, (2) System Maintenance and Integration, (3) Attainment of Organizational Goals, (4) Need Fulfillment, (5) Organizational Adaptability, (6) The State of the Internal System (Health Criteria), and (7) The State of the Organization's Relationship with its External Environment and Sources of Support.

A Basic Effectiveness Model

I think we can return now to two earlier questions:
(1) Do the elements of educational and organizational effectiveness represent two independent models of effectiveness or do they constitute an interdependent set?, and (2) How can we integrate the dimensions of effectiveness in a framework for depicting effective public schools?

I would argue that we do, in fact, have the basis for a single conceptual framework. There are three reasons for taking this position. The first reason is the overlap among many of the effectiveness elements in both cases. Goal clarity, goal
attainment, and need fulfillment have been discussed as essential for achieving both educational and organizational effectiveness. Implicitly, I think that adaptability and goal appropriateness are also essential in both instances. Schools must be able to adapt if the educational goals they pursue are to be appropriate.

The second reason I would argue for a single framework is that it is difficult to classify many of the goals pursued in schools as distinctly "educational" or "organizational" in nature.

Perrow (1970, ch. 5) has suggested a typology that differentiates goals into five types on the basis of their primary referent. These types are: (1) Societal Goals, where benefiting the social environment, (2) Output Goals, where the referent is producing or providing for the organization's consumers or clients, (3) Product Goals, where the emphasis is upon changing or improving the output per se, (4) System Goals, where the referent is changing or improving the organization or social system, and (5) Derived Goals, where the referent is the organization's use of power to achieve other purposes. Just using Perrow's Typology, I think one would find considerable overlap between the educational and organizational goals a school might be pursuing.
My third argument is simply that "success" on any of the educational dimensions is difficult to imagine in a school that is not also successful along organizational dimensions. Conversely, I do not see how a school can be viewed as an effective organization if it is not succeeding at its primary responsibility.

In Figure 1, therefore, I have integrated the two sets of conceptual dimensions into a single framework for depicting effectiveness. Five of the dimensions in the model might be employed whether one's concern is specifically with effective education in schools or the school as an effective organization. These are the dimensions of Clarity of Goals, Adaptability, Goal Appropriateness, Goal Attainment, and Need Fulfillment. The remaining three dimensions refer specifically to the school as an organization, although as I have argued, they are not unrelated to providing effective education.

Properties of School Systems: Implications

With this basic framework in mind, I would now like to consider the last major issue to be addressed in this paper. Given the properties of public schools, "What are some of the implications for operationalizing effectiveness?"

Sieber (1968) has described the school as "... a vulnerable formal organization with diffuse goals, whose functionaries are quasi-professionals, and which is devoted to processing people within its boundaries". I would add several other characteristics to those Sieber mentions.
Figure 1: Dimensions for a Framework of Effectiveness in Educational Organizations

- Internal System Conditions
- Clarity of Organization
- Need Fulfillment
- Goal Attainment
- Relationship With Environment
- Environmental Conditions
- Societal Goals
- Product Goals
- System Goals
Schools are, for the most part, public institutions. Because they are public, schools face diverse and complex "task environments". Thus, they are expected to assume multiple roles and purposes, to serve multiple and varied clientele, and to fulfill a complex and varied set of needs. Schools are also legislated institutions. As Sieber suggests, they are politically vulnerable. This means possessing little decision-making autonomy -- and being extremely dependent on their environments. Unlike many private organizations, schools probably depend as much on politics for obtaining resources as they do on performance. Finally, schools are -- particularly in today's society -- as much responsible for the educational process they provide as for the product that results from that process. With these as "realities", what are the implications for operationalizing effectiveness in public schools?

First, given the complex task environment of schools, I think we need a differentiated range of roles, purposes, clients, needs, and goals within which we might specify operational criteria for measuring effectiveness. Using Perrow's Typology, I have tried to illustrate how we might begin to specify multiple goals for schools. In addition to more refined goal typologies, however, we also need to develop better means for classifying the school's constituencies and the diverse needs they present.
Second, given the high degree of dependence and extreme vulnerability found in schools, I think that operationalizing an "effective" relationship with the environment entails specifying conditions in that relationship that emanate from the environment as well as from the school. In a private organization, perhaps, the burden for that relationship necessarily falls on the internal social system. In a public school, however, the state of the relationship between a school and what we traditionally refer to as the "external environment" is as much the responsibility of elements in the environment as it is the responsibility of the school. What I am suggesting then is that measuring effectiveness in public schools could well include setting effectiveness criteria for those groups or elements in society who control the resources and decisions that determine whether the school can be effective. Traditionally, parents, community members, and legislating groups have been viewed as part of the school's external environment. To operationalize effectiveness in public schools, then, we have to either apply some criteria to elements in the environment, or extend the boundaries of what we consider the "organization".

Third, I think that operationalizing "adaptability" in schools, involves setting criteria for adapting to changing factors and conditions internal to the organizations as well as adapting to these changes in the "external" environment.
Katz and Kahn (1966) have defined organizational adaptation as a function that looks "outward". This may be a valid description in a business organization where there is an obvious distinction between what is "external" and "internal", who are the organization members and clients or consumers, and, where the organization's boundaries are drawn. In schools, however, students, parents, teachers, officials, and legislators assume multiple roles. Thus, these distinctions are not always clear. I would suggest then, that the criteria we develop for measuring "adaptability" in schools encompass responses to changing intra-organizational factors.
Conclusions

In this paper I have attempted to examine "effectiveness" as it applies to public educational organizations. In doing so I have arrived at several conclusions about what this entails and how we might begin to conceptualize -- and then operationalize -- effectiveness.

First, I think we must approach effectiveness in a way that allows us to account for both education and organization as our referents. We cannot divorce the two. More than this, we must recognize in theory and practice that schools cannot be either educationally effective or organizationally effective. Each entails the other.

Second, I would conclude that no single organizational perspective or "model" is alone sufficient to provide the dimensions we need. This is as true of the rational "models of organization as it is of the functional models, system models, or normative-prescriptive approaches to organization behavior. What we need is an integrated set of dimensions derived from all of these perspectives.

Third, I have concluded that we need to extend the range within which we specify and operationalize many of the elements of effectiveness. For example, we need to specify both educational and organizational goals within a far wider range than we are presently accustomed to doing.
Finally, we need to reconsider the boundaries of the organization and who or what we hold accountable. Either we begin to adopt criteria for measuring effectiveness that extend into the "environment", or, perhaps, we extend the traditional boundaries of organization in the case of schools to include sectors of its "environment".

**Implications for Change and Accountability**

If my conclusions are valid, then I think they have serious implications for both our approach to change in schools and our approach to accountability. Planned change, and particularly O.D., has relied heavily upon normative-prescriptive models of effectiveness and focused primarily upon processes and relationships within the internal social system. I would not condemn this. Some of the conclusions in this paper, however, suggest that we need to focus on other aspects of the school as an organization as well. We also need to look beyond the traditional boundaries of the school and into the "environment" in which the school functions.

Finally, if we are going to take accountability schemes seriously, then we have to begin to go beyond learning outcomes for assessing schools. Assessing effectiveness in schools is a two-pronged endeavor. I would hope that those responsible for this begin to account for the fact that schools are organizations. Measuring effectiveness, then, involves looking into the organization, not just the test scores it "produces".
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