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AUTHOR Pierce, Douglas R.
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ABSTRACT

One important variable used in measuring organizational health is the domain of the organization. For schools, the domain of the organization can be described by (1) the population served (clientele), (2) the problems treated (output), or (3) the services rendered. Organizational effectiveness can be successfully determined only if the domain of the school is adequately described. (RA)

DOMAIN DESCRIPTION: CRITERION IN EDUCATIONAL SOCIAL SYSTEM FIELD EXPERIMENTS OR FIELD STUDIES

Paper prepared for presentation at the California Educational Research Association Annual Meeting, San Diego, April 29-30, 1971,

by
Dr. Douglas R. Pierce
Director of International Education
California State Polytechnic College
San Luis Obispo, California

Organizations are not self-sufficient or closed systems, at least if they survive for more than a transitory period of time. Survival depends upon obtaining inputs and disposing of outputs, involving transactions between the organization and its environment. Some organizations prosper in such exchanges; others fare poorly. Explanations for such performance are sought in diverse ways, reflecting varied orientations.

The general success of school organizations in exchanges with their environment warrants more systematic analysis than it has received. Further, more than simple observation and analysis is warranted. School organizations can be treated as criterion in field experiments, with systematic interventions in the exchange relationship designed to generate predictable development of the school organization. Interventions can be designed to increase inputs to school organizations, and to increase the value of school organization outputs.

Such increases need not be considered in zero-sum terms, as at the expense of those parts of the environment which are engaged in the particular transaction. Rather, both parties to the transaction can grow more potent, in a non-zero-sum relationship. Thus the proposal of intervention does not imply abandonment of ethical concern for those subject to field experimentation. Conversely, the field researcher is explicitly in a socially responsible role.

Responsible intervention in transactions or exchanges between school organizations and their environment depends upon adequate information about the organization and about significant parts of its environment. Such information about school organizations can be organized under the concept of domain.

A domain is constituted by claims which a social system stakes out for itself. Such claims may be more or less crystalized. Similarly, recognition and acknowledgement of such claims may vary; the degree of domain consensus limits the extent to which a social system becomes operational, by which is meant, engages in exchanges or enters into transactions with its task environment. Establishment and maintenance of exchange relationships with those parts of the environment which are relevant to goal setting or goal attainment predicts social system survival and health.

Dimensions on which social systems stake claims include (1) popu-

lation served, or clientele; (2) problems covered, or range of products; and (3) services rendered.[1] Success in staking a claim to provide services in treatment of certain kinds of problems for some clientele establishes the boundaries of a social system. Those claims constitute terms on which the social system must deliver to survive, and on which it must make demands on its task environment.

Consider the range of variation on basic domain dimensions for school organizations:

I. Population served, or clientele:

A. Age: early childhood through adulthood

B. Sex: Male only, female only, male and female

C. Ethnic status: Homogeneous - heterogeneous degree of marginality

D. Religious composition: homogeneous - heterogeneous, denomination

E. Political orientation: homogeneous - heterogeneous, conservative - liberal, active-passive

F. Socio-economic status: low to high, homogeneous - heterogeneous

G. Geographic concentration: sparse to dense

H. Numbers: few to many

I. Physical characteristics: normal - handicapped

J. Mental and emotional characteristics: normal - abnormal

II. Problems treated, or range of products:

A. Cognitive (refer to Handbook I, Taxonomy of Educational Objectives)[2]

B. Affective (refer to Handbook II, Taxonomy of Educational Objectives)[3]

C. Moral and spiritual values

D. Custodial care/detainment

E. Nutrition

F. Health

G. Recreation

H. Social policy (e.g., instrument of desegregation)

III. Services rendered:

A. Diagnosis

B. Prescription

C. Treatment

D. Referral

E. Placement

F. Social stabilization-change (e.g., promotion of social stability vs. social change)

G. Knowledge transmission-production-behavioral change (e.g., impart information vs. change behavior)

H. Participative opportunity (e.g., spectator vs. active participant)

Data is readily available on some of the variables above listed. Information is regularly collected on the age, sex, and recently, ethnic status of at least a portion of school system clientele.

Information on some elements of the clientele, however, such as students in adult education classes, spectators at dramatic, musical and athletic events, and employers of school graduates or of school drop-outs, is less frequently collected. Less attention is given to availability of data on problems served and services rendered.

Information is limited on variation in perceptions and expectations pertaining to the composition of the population served by a school, the problems which it purposes to treat, and the nature of services which it offers in treatment of the problems. Authorities have observed that the boundaries of schools are differentially experienced by teachers, administrators, affluent parents, and poor parents - but supporting data is not cited.[4]

Recent interest in performance contracting and educational accountability can be expected to focus attention on problem treatments for which performances indicators are readily available.[5] The attendent data collection pertinent to those tasks can be expected to influence restructuring of school system domains.

Related symptoms, such as student militancy and budgetary constraints, constitute challenges to the domains of schools. Presumedly as a consequence, the claims will be renegotiated.

At times of renegotiation, it would be well to be precise about the nature of present claims, and the alternative claims which could be viable.

An illustrative data source which could be analyzed for this purpose is restricted to higher education. A report by the American Council on Education[6] describes a data bank containing information for over 2300 higher education institutions on institution type, sex, race, control, enrollment, selectivity measures, calendar plans, staff, amount of tuition charged, student aid granted, number of foreign students, residential facilities and use, library resources, federal aid received, and degrees conferred.

Efforts to describe domains in higher education have increased in recent years. (However, the efforts have not been guided by the theoretical structure developed by James Thompson and others.) Allen Barton reported a number of pertinent studies in 1961 under the title Organizational Measurement and Its Bearing on the Study of College Environments.[8] Alexander Astin's The College Environment[9] integrated considerable previous work. Studies by Edward Gross and Paul Grambsch,[10] and the American Association for Higher Education study just reported by Morris Keeton under the title Shared Authority on Campus,[11] provide additional material amenable to domain description for higher

education institutions.

In addition to the possibility of secondary analyses of studies such as those above cited, domain description can be approached through existing data banks including statistical records maintained by governmental agencies, accrediting agencies, and other agencies, through independent surveys, through direct or unobtrusive observations, and through documentary analysis involving sources such as course lists, newspapers, and charters.

The processes of observation, analysis and presentation associated with domain description constitute a form of intervention. Other forms of intervention include administrative, judicial, or legislative mandate (e.g., "freeze" on student enrollment, voucher plans, and busing requirement), promotional campaigns (including political campaigns associated with elections and bond issues, as well as advertising and recruitment campaigns), and crusades.

Field experiments can capitalize on natural occurrences, as evident in the above listing of intervention forms, or can involve deliberate manipulations.

In either case, the investigator would be well advised to select the experimental unit with regard not only for characteristics of the school system, but also for characteristics of the task environment. Under conditions of environmental stability and

homogeneity, for example, demands upon the school system will be predictably less demanding of coordinative energy. Low coordinative demands are associated with availability of resources for core technology utilization.

At least two other major variables must be taken into account to predict both the kind of effectiveness criteria which will be applied and the judgment of effectiveness on that criteria. First, whether standards of desirability are crystalized or ambiguous makes a significant difference in effectiveness judgments, which are critical to decisions not only on organizational activity, but also on inputs. Second, whether knowledge of cause/effect relationships is believed to be complete or incomplete strongly influences the basis of effectiveness judgment (whether desired outcomes are satisfied, maximized, or socially referred, either to the organization's own prior history, to the organization's share of the available market, to extrinsic measures of the organization's fitness for future action, to the organization's prestige, or to the organization's conservation of resources or minimization of input requirements, or whether performance is judged according to adherence to rules, quotas, and schedules), which in turn influence the degree to which the organization is judged to be effective.

Interactive effects can be expected between a number of important variables (task environment: homogeneous vs. heterogeneous, stable vs. dynamic; standards of desirability: ambiguous vs. crystalized; knowledge of cause/effect relationships: belief that knowledge is complete vs. belief that knowledge is incomplete; domain: degree to which crystalized, degree of consensus; domain-task environment relationship: assumption of zero-sum relationship vs. assumption of non-zero-sum relationship, lack of confidence vs. trust, degree of reciprocal/mutual dependence, direct vs. indirect interdependency). Sorting out the effects upon the survival and health of an organization will require collection of data on strategic variables, and multivariate analysis. Decision as to which variables are strategic, hence warrant interventions to attempt to generate desirable changes, are important. Lack of paradigm consensus tends to result in selection of variables of high visibility, high public interest, and ready accessibility.[12]

The concept of domain is proposed as a strategic variable. Empirical description of the domain of school organization (whether the unit of analysis is a school district or some sub-system such as an elementary level attendance center) would in effect constitute an intervention which could alter relationships between the school and its task environment. The process of data

collection and measurement influences activities, resulting in change in emphasis on activities according to their acknowledged legitimacy, but also resulting in change in legitimacy status associated with activities.[13]

Increased visibility of the population served by schools, the problems treated by schools, and the services rendered in treatment of those problems would facilitate allocation decisions pertinent both to provision of resources to schools (inputs) and the kind, quantity, and quality of school productivity (output). Assignment of responsibility for performance of selected functions to other sub-systems or independent social systems (e.g., collaborating with other school districts for education of emotionally-handicapped children, stationing of police in schools, or contracting with private vendors for language training) or incorporation of selected functions (e.g., residential facilities, busing to attain racial/ethnic balance, or farming practices to provide laboratory experience) are options called into awareness by such visibility.

Intervention in the relationship between a school social system and its task environment (regardless of whether the intervention is natural or designed by an investigator) has potential for changing the domain structure. Changes on the ambiguity-crystalization continuum or in the degree of domain consensus

among the membership of the school system and members of important parts of its task environment should be considered important. Empirical description of domain dimensions, performed by independent investigators, is recommended as one such intervention which offers potential for increasing the value of the relationship both to the school and to its task environment.

An alternative intervention could involve deliberate efforts to alter prevalent assumptions that the school-environment relationship was zero-sum in nature, toward a non-zero-sum assumptive state. Again, effects upon the ambiguity-crystalization continuum and the degree of consensus, as well as absolute changes in the structure of the domain, would warrant empirical determination, and ultimately, value judgment. Such ultimate value judgments would reflect probabilities for organizational survival and organizational health.

References

1. Thompson, James D., Organizations in Action, New York: McGraw-Hill, 1967, particularly pp. 25-38; also see Levine, Sol, and Paul E. White, "Exchange as a Conceptual Framework for the Study of Interorganizational Relationships," Administrative Science Quarterly, Vol. 5, March 1961, pp. 583-601; Guetzkow, Harold, "Relations Among Organizations," Chapter 2 in Raymond Bowers, editor, Studies on Behavior in Organizations. Athens: University of Georgia Press, 1966, pp. 13-44.

2. Bloom, Benjamin S., editor, and others, Taxonomy of Educational Objectives, Handbook I: Cognitive Domain. New York: David McKay, 1956.

3. Krathwohl, David R, Benjamin S. Bloom, and Bertram B. Masia, Taxonomy of Educational Objectives, Handbook II: Affective Domain. New York: David McKay, 1964.

4. Miles, Matthew B., "Education and Innovation: The Organization as Context," Chapter 5 in Max G. Abbott and John T. Lovell, editors, Change Perspectives in Educational Administration. Auburn, Alabama: School of Education, Auburn University, 1965, pp. 54-72.

5. Schutz, Richard E., "Measurement Aspects of Performance Contracting," Measurement in Education, Vol. 2, No. 3, March 1971, pp. 1-4.

6. Creager, John A., and Charles L. Sell, The Institutional Domain of Higher Education: A Characteristics File for Research. Washington, D.C.: American Council on Education, Office of Research, 1969 (Report No. ACE-RR-Vol. 4, No.6).

7. Thompson, James D., Organizations in Action. New York: McGraw Hill, 1967.

8. Barton, Allen H., Organizational Measurement and its Bearing on the Study of College Environments. New York: College Entrance Examinations Board, 1961.

9. Astin, Alexander W., The College Environment. Washington, D.C.: American Council on Education, 1968.

10. Gross, Edward, and Paul Grambsch, University Goals and Academic Power. Washington, D.C.: American Council on Education, 1968.

11. Keeton, Morris, Shared Authority on Campus. Washington, D.C.: American Association for Higher Education, 1971.

References Cont'd

12. Kuhn, Thomas S. The Structure of Scientific Revolutions. Chicago: University of Chicago Press, 1962; also see Sieber, Sam and Paul Lazarsfeld, Organizing Educational Research. Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

13. Blau, Peter M., The Dynamics of Bureaucracy. Chicago: University of Chicago Press, 1955.