

DOCUMENT RESUME

ED 047 368

EA 003 278

AUTHOR LeBlouis, Michael; Sharpes, Donald
TITLE A Conceptual Model of School Personnel Utilization:
A Developmental Spectrum for Evaluation Purposes.
PUB DATE Feb 71
NOTE 55p.; Paper presented at American Educational
Research Association Annual Meeting (55th, New York,
New York, February 4-7, 1971)
EDRS PRICE EDRS Price MF-\$0.65 HC-\$3.29
DESCRIPTORS Community Attitudes, Differentiated Staffs,
*Evaluation, Individualism, *Innovation,
*Organization, Organizational Change, *Staff
Utilization, *Structural Analysis

ABSTRACT

Innovations in school staffing arrangements have outstripped theoretical knowledge, resulting in the impossibility of comparing and evaluating staffing arrangements. This model describes aspects of staff utilization according to variables universal to all school staffing procedures. Individualism, collegiality, professionalism, workflow structures, perpetuation structures, systems self-renewal, and accountability are the variables that constitute a staffing structure. Since each is a continuum and relatively independent from the others, a school staff may be characterized as having developed to a certain degree along a continuum for any variable. It is then theoretically possible to provide comparative measures among a variety of staffing innovations, to obtain pre- and post-innovation measures in a single school, and to obtain growth measures for one or more variables. (Author/RA)

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

EDO 47368

The Department of Educational Research, Florida State University, has recently been contracted by the School Personnel Utilization Program of the U. S. Office of Education to provide an Evaluation Training Center for training educational researchers in the design and implementation of evaluation techniques appropriate to School Personnel Utilization Projects. Under this contract the Center will develop a comprehensive plan for evaluating SPU funded projects, provide training for students associated with the Center, and assess the general effectiveness of the SPU Program by evaluating its impact at the project level.

A CONCEPTUAL MODEL OF SCHOOL PERSONNEL UTILIZATION:
A DEVELOPMENTAL SPECTRUM FOR EVALUATION PURPOSES *

Dr. Michael DeBloois
Florida State University

Dr. Donald Sharpes
United States Office of Education

Introduction

The development of more flexible staffing structures as a means of improving public education increased in popularity during the past decade and is continuing to make a remarkable impression on the face of the teaching profession. In 1969/70 more than one hundred school districts submitted preliminary prospecti to the SPU Program of the U. S. Office of Education requesting funds for training teachers for new roles. In addition a number of state legislatures, including Florida, South Dakota, Massachusetts, and Texas, have passed enabling legislation requiring pilot studies of the concept.

As is the case with many other educational innovations, there has been a good deal of confusion concerning the essence of the concept of more effective staff use. Differentiated Staffing, one of the more

*A paper presented to the 1971 Annual Meeting of the American Educational Research Association New York, New York

EA 003 278

promising staffing innovations, has been enthusiastically embraced and hailed a success in a partially implemented pilot study or two; however, it is not without its critics who believe there is much less to the concept than meets the eye. The American Federation of Teachers (Bhaerman 1969) views it as an updated version of merit pay which can only weaken, divide, and otherwise interfere with a growing trend of teacher unity.

The School Personnel Utilization Program of the U. S. Office of Education has been a leading force advocating structural innovations. Administering funds made available by Congress for the development of the educational profession (EPDA funds), the SPU Program for three years has financed training activities aimed at providing educators with the necessary skills for developing alternative staffing models, planning for the implementation of these models, and putting the models into practice. Initially the SPU effort was aimed at model development in a half-dozen projects and most of the evaluation effort went into determining whether SPU guidelines were being met--little assessment took place regarding program outcomes. Now, following this limited evaluation effort, SPU Program officials are seeking an answer to the question, "How effective is our program of providing money for the training of school personnel to adopt new roles and develop alternative staffing structures?"

The evaluation of the School Personnel Utilization Program has been contracted out to the Department of Educational Research, Florida State University. Data is now being collected in twenty-three project locations, and initial responses to the question will be forthcoming.

The Problem

An evaluation of the SPU Program, based on SPU Program objectives, must have three separate thrusts: the first should seek to determine whether or not the USOE SPU Program is achieving its objectives, another must include an evaluation of the individual projects funded through the SPU Program to determine whether their goals are being realized, and a third must attempt to discover whether the staffing alternatives being developed are indeed different from conventional models and show promise of facilitating the more effective use of personnel in the schools.

The third element requires further elaboration. The worth of any staffing innovation, in the final analysis, will probably be measured by the degree to which it facilitates an increase in student achievement, improvement of student attitude, or perhaps even student self-direction of learning. But having stated this, we may now focus on a more immediate concern. Before the worth of any particular staffing innovation can be evaluated in terms of additional student achievement, evidence must be gathered which demonstrates that a new staffing arrangement has indeed been implemented. Our present inability to describe a staffing arrangement by its essential characteristics--those which are central to the adoption of different roles on the part of teachers--inhibits staffing innovators from producing this evidence. All too frequently in the past organizational-structural innovations have been evaluated as having no significant impact on the performance of students, when, in fact, there was no evidence as to what exactly was implemented which made no significant difference. The Nova Study (Foster 1970), in particular, demonstrated a significant decline in student achievement with the "adoption" of structural innovations. It also specified, however, that the Nova

Plan was never really implemented. The disrupted traditional structures were never replaced by the model supposedly being evaluated.

Similar to the problem in the proverbial story of the blind men describing an elephant, this confusion comes more from individuals having an accurate but incomplete understanding than it does from misinformation or error. Too frequently would-be staffing innovators engage a staffing hierarchy or a salary schedule and think they have embraced the essence of an organizational innovation. Another large portion of confusion and mistrust originates in an inadequate definition of the ends and means of staffing innovations. Strategies for initiating a change are often confused with the desired outcomes resulting in a situation where successful implementation of the strategy passes for accomplishment of the desired goal. Thus titles are often changed and job descriptions are rewritten but the goal of changing teacher and student behavior is seldom realized.

The practice of structural innovation has outstripped its theory-base and we are left in a condition where meaningful criteria for evaluation is totally lacking, and hypotheses for refinement and application of the concept are nonexistent. Much of the current rhetoric concerning "the using of teaching personnel more effectively" leads one to conclude that teaching staffs are organized around emergent or traditional values, with emphasis on horizontal or vertical organizational structure, having a single standard salary schedule or remuneration based on the amount and kind of responsibility individuals carry. These individual claims in themselves are not untrue, but the dichotomous situation they infer simply does not exist! It is therefore important that a conceptual

of the "whole elephant of staffing structures"--one that will offer a means for studying the interrelationships among process and product variables, and serve as a criterion standard against which any staffing innovation may be described and measured.

School organizational structures range across a broad and varied continuum and have organic rather than static characteristics. Individual teaching personnel are also found at different stages of personal and professional development. A school with rigid structures and outdated instructional methods might, over the course of eighteen or twenty-four months of fairly extensive inservice training of personnel, emerge very flexible and innovative in structure and subsequent staff behavior. An examination of the variables that were manipulated and produced a more flexible and innovative structure should provide the beginning of a theoretical base from which more fully developed understandings can be drawn.

The Conceptual Model

The conceptual model for evaluating staffing innovations being developed by the Florida State team is based on the preceding rationale. It brings more rationality and flexibility to the movement of improving teacher effectiveness through structural innovations by defining other dimensions of the concept beyond staff differentiation. The conceptual model attempts to explain the behavior of personnel in schools and to describe the interrelationships of the various aspects of staff use according to variables "universal" to all school staffing patterns. The Model's claim to comprehensiveness comes after some rather extensive research into the literature of organizational theory, models of differentiated staffing, and a good deal of on-the-spot observation and

inservice teacher training. Likert (1961), McGregor (1960), and Owens (1970) were of particular interest to the author's research in organizational theory. Argyris (1962), Bakke (1959), Bennis (1966), and Simon (1960) also contributed to this study in a significant way.

In brief form, the conceptual model makes the following assumptions:

1. There are elements common to all forms of organizational structure.
2. Any change in the organizational structure, regardless of the particular structural innovation being attempted, can be explained in terms of these common elements.
3. An innovative structure may be described in terms of these characteristics and compared or contrasted to other structures described by the same elements.
4. Once a staffing innovation is described in accordance with the categories of the conceptual model, it is possible to chart changes in the structure which may occur as any reasonable number of the common elements are manipulated.
5. The conceptual model provides a means for describing changes in an organizational structure as movement along a developmental continuum of staff-use variables and a change in way of the variables of the model may be charted as movement left or right on the continuum.

Thus, through the use of this model, conceptualized as a developmental continuum, it is theoretically possible to provide:

1. Comparative evaluation of a variety of staffing innovations,
2. Pre- and post-innovation measures in a single school,
3. Growth measures of a staff involved in a training program along a continuum of a single variable or along a cluster of a number of variables with unique relationships.

The variables which make up the model are classified as variables of process, variables of product, and essential characteristic variables.

Stogdill (1966) and Burns (1964) were influential in the selection of categories and sub-categories in the model.

The process variables provide a description of the processes employed in the development of a model for staffing innovation, the procedures used in planning for implementation of a specific staffing model, and the strategies and techniques related to implementation of the model. Here the concern is the assessment of a staff's capability for systematic and continual recycling of goal assessment, program development, and implementation and evaluation (see Geisert, et al, 1970). These process variables of the model are listed under the classification SYSTEMS SELF-RENEWAL in Table I.

The product variables assess a staff's capability for summative evaluation and accountability. They describe each project's evaluation component under the classification ACCOUNTABILITY in Table I. This category of the model describes the degree to which a staff incorporates a system for program planning budgeting (i.e., the degree to which the budgeting system assists rather than inhibits the development of the instructional program). The characteristics of the program planning budgeting system and the expectations held for the system will be basic to the description. Another major factor incorporated under this classification is the assessment of how accountable the staff is in regard to its most immediate clients: the public, the student, and the teaching professional. Components of the accountability classification elicit the following questions:

1. What are the products of the new structure of staff-use as compared to its objectives?
2. How cost-efficient is the structure?
3. How successful is the staff in maintaining its structure within the context of a self-renewal system?
4. How great is the probability of continued operation of structure?

The essential characteristic variables offer a description of the staffing structure being employed. Here emphasis is placed on regard for the individual, group structures, and ethical structures. Operational procedures and resource procurement complete the categories which subdivide this general heading. These five categories appear in the model described graphically in Table I as INDIVIDUALISM, COLLEGIALLY, PROFESSIONAL DISPOSITION, WORKFLOW STRUCTURES and PERPETUATION STRUCTURES.. A synthesis of two models which define dimensions of organizational structure, Bakke (1958) and Stogdill (1966), has led to the selection of these general categories. Although this will undergo continual modification, the author believes it may be used to describe the specific structure of any staffing innovation. The following questions which were derived from these essential characteristic variables of the model should elicit the most important considerations of structural configuration:

- *How does this structure affect the self-concept of the individual in the organization?
- *How does it affect an individual's identification with the institution?
- *How does it affect an individual's exchange with the institution?

- *How does it affect the interaction of personnel in the organization?
- *How does it affect the expectations people have of others in the organization?
- *How does it affect interdependence of individuals in the organization?
- *How does it affect interpersonal competence demonstrated by members of the organization?
- *What impact does it have on collective exchanges with the organization?

- *How does this structure alter the professional's commitment to the student?
- *How does it affect his commitment to his specialized area of expertise?
- *How does it affect his commitment to the public trust?
- *How does it change his commitment to the teaching profession?
- *How does it alter the individual's perception of the essential characteristics of professionalism?

- *What assumptions underlie all workflow structures?
 - *What resources does the structure recognize and make available?
 - *What means of influence does the structure employ?
 - *In what manner is programmed and non-programmed decision making structured?
 - *How does the new structure allocate responsibility?
 - *What are the characteristics of the new structure's communication nets?
 - *What evaluation criteria are established to determine the structure's effectiveness?
-
- *What policies are established to guide recruitment of new talent for the organization?
 - *What criteria are used to guide the selection of new personnel?
 - *What is the organization's policy concerning credentialing?
 - *What policies have been established regarding obsolescence; what is the nature of inservice training?
 - *What policies have been instituted to provide for a division of labor?
 - *What is the nature of the incentive system?
 - *What policies have been established regarding promotion?
 - *What are the characteristics of the remuneration schedule?

This conceptual model for evaluating organizational-structural innovations is just that--a model designed to identify the essential processes and conditions relevant to staffing innovations. This model will provide a basis for instrument development and when combined with an appropriate evaluation design, it will provide a comprehensive and reasoned means for evaluation. It will provide the direction necessary for determining how successful SPU financed training programs have been in developing new models of staff use, planning the implementation of these models, and preparing personnel for adopting new roles required by the implementation of the models.

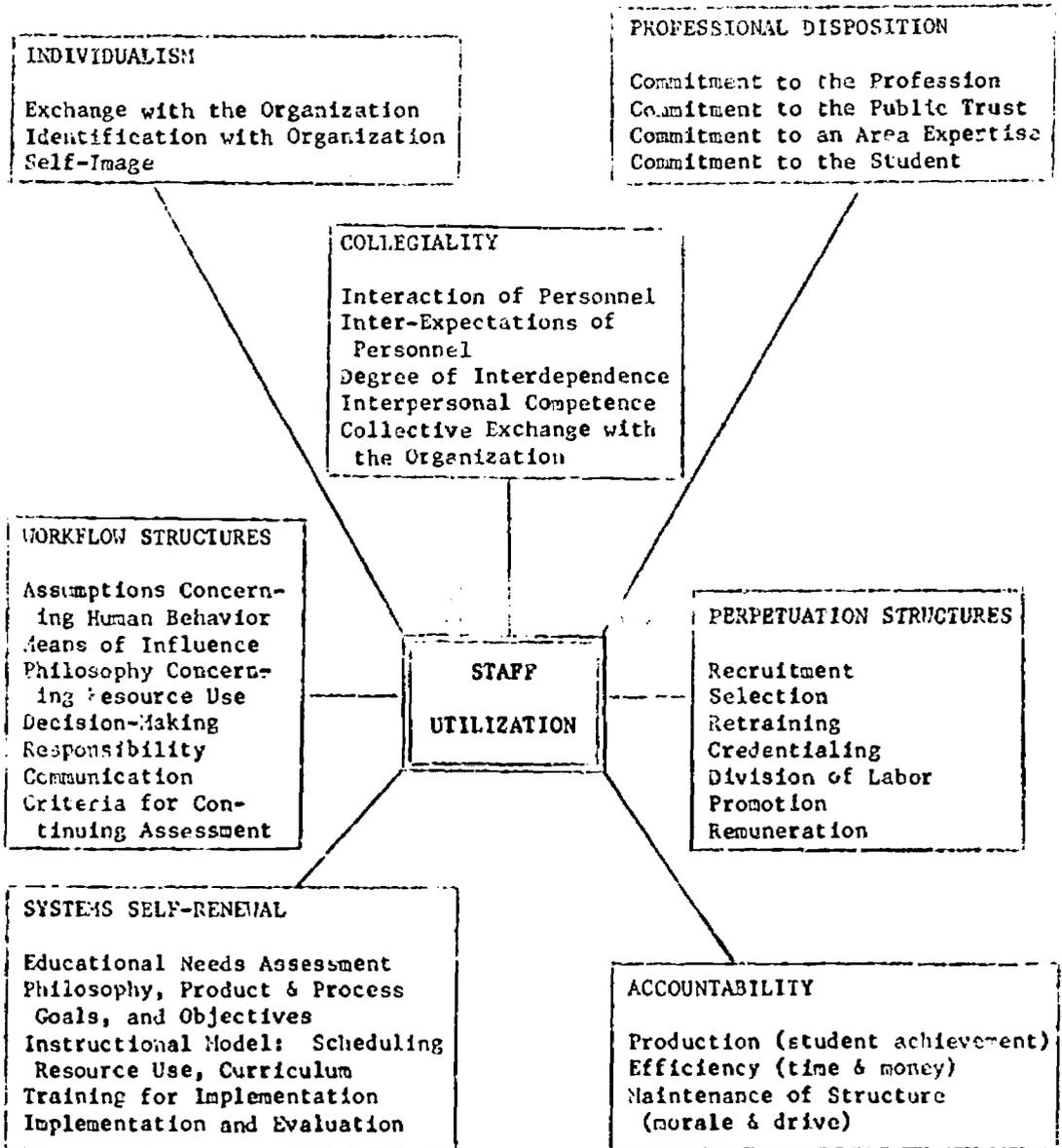


Table I

Towards a Conceptual Model for Evaluating
Organizational-Structural Innovations

APPENDIX

INDIVIDUALISM

Self Image

Identification with the
Organization

Exchange with Organization

The variable of organizational structure, Individualism, represents institutional regard for the uniqueness of each of its members* It

defines a reciprocal relationship between an individual and the institution with which he is associated. It is a measure of freedom from restraint that an institution grants an individual in the pursuit of institutional goals--the degree to which an institution recognizes the individual differences of its members, their different strengths and weaknesses, and their varied personal goals. An institution reflects this awareness in its admittance and dismissal policies, in its hiring and firing, in its reward and reinforcement schedules, and in the manner it allocates human resources toward goal fulfillment.

The variable can be further defined through a description of its three basic components which the author has adapted from Miller (1967): A subjective component which considers the way a member of an organization views himself; an interactive component which describes a person's identification with the organization; and a behavioral component that defines the actual exchange an individual makes with the institution.

*Throughout this model "members" should be interpreted to mean all personnel including students, who are associated with the institution. At a later date the model will be expanded to more fully consider the student's role as an independent variable of staffing innovation.

The subjective element reflects the personal sentiment an individual develops as he operates within the organization, trying to become the type of person he chooses to be. This component is most concerned with a measure of self-actualization, an ultimate value for the members of an open society.

The interactive element takes into consideration the nature of the individual's identification with the organization. It is a measurement of that which the individual expects to gain from his unique association with the institution, and that which he expects will be required in return. It is a measure of the individual's expectations of reciprocity.

The behavioral element is a measure of exchange--that which one does in an effort to satisfy certain needs and secure certain benefits within the organization.

By comparing the individual's view of what he brings to the organization and what he expects from it in return, with the individual's perception of what he actually does and what reward is given, it is possible to place a value on how fully the institution recognizes the individual as distinct, different and peculiar.

In an organization with a high degree of individualism one expects to find people who are pleased with their positions (what they are expected to do) as well as with their roles (what they actually do). Their performance for the institution should enhance their self image, and encourage further actualization of self. They should be pleased with themselves, satisfied with institutional expectations and in agreement with the exchange of performance for benefits. The institution should likewise be pleased with them.

The following are assumptions basic to the development of the category of Individualism:

1. The institution is reciprocal in meeting the personal goals of its employees as institutional goals are met.
2. The institution establishes rules, procedures, and policies which recognize the individual differences of its members.
3. An open society is necessary--it must allow all individuals to choose among a wide variety of alternatives and provide standing invitations to reshape personal and social goals.
4. One must be a self (be able to look at himself as an object).
5. Individualism is at the opposite pole to external authority, and uniformity, and is much closer to the pole of self-discipline and self-dependence.
6. Isolation and individualism are wholly incongruous, the creativity of the "I" is responsible to the "We."
7. Individualism does not require freedom from an organization per se, but freedom to choose whether to conform to those elements of an organization that restrain.
8. A society is closed to the extent that it opposes change that would more effectively satisfy the motivations of its members.
9. It is the responsibility of the individual to take care of his own self-actualization, but the responsibility of a collection of individuals or society through governmental action to provide conditions necessary for the same. An institution must play a governmental role in providing conditions where the individuals in the organization can develop their potential.

Instruments can be obtained which will measure this organizational dimension, either by adapting already existing instruments to the conceptual model or through development procedures. Regardless of their source, these instruments must elicit responses from individuals associated with the staffing innovation relevant to the following questions listed under the three basic component headings of the variable:

SELF IMAGE

(Subjective)

To what degree do:

- I value myself?
- I motivate myself?
- I feel creative?
- I feel a source of new ideas?
- I have specialized knowledge and skills?
- I feel successful in satisfying my emotional needs?
- I feel unique?
- My performances reflect my worth?
- I feel free to choose to conform or not?
- I determine ultimately what I am?
- I feel responsible to perform a societal role to perpetuate the conditions for others which allow me to self-actualize?

IDENTIFICATION WITH ORGANIZATION

(Interactive)

- What do I have to offer an institution?
- How intense will my relationship be?
- What unique skills do I offer.
- What personality characteristics do I offer of value?
- What does the organization expect of me?
- To what extent can I support the goals of the organization?
- To what degree am I willing to engage my talents toward fulfilling institutional goals?
- Do my personal goals conflict with those of the organization?
- What do I expect in return for my contribution?

EXCHANGE WITH THE ORGANIZATION

(Behavioral)

- What do I do for the reward I get?
- Do I do too much or too little?
- How pleased am I with the nature of my contribution?
- Are my unique talents being used?
- Am I developing my potential?
- Is there appreciation for what I do?
- Is more expected of me than I can deliver?
- What is my reward for performing?
- Is the reward great enough?
- Is the nature of the reward appropriate for my needs?
- Does the reward encourage my best efforts?
- Am I doing what I expected to be doing and am I rewarded in a manner I believed I would be?

COLLEGIALITY

Interaction of Personnel	Collegiality, a second organizational variable in
Interexpectation of Personnel	the conceptual model, focuses
Degree of Interdependence	on the dimension of interper- sonal relations among individ-
Interpersonal Competence	uals in the organization.
Collective Exchange with Organization	This variable is composed of five elements: the first deals with the <u>quantitative</u> inter- action of individuals; the second deals with the expectations that individuals have of others they work with; and a third considers the degree to which exchanges between individuals in the organization are interdependent. The fourth component is one which seeks to measure <u>quality</u> of the interaction, the degree to which individuals are interpersonally competent. The last element attempts to define the nature of the col- lective exchange groups of individuals make with the institution-- that which groups do to satisfy certain collective needs and secure certain collective benefits from the organization.

Taken as a whole these factors provide a description of the relationships among the members of an organization. According to Stogdill (1966) they account for the transformation of an undifferentiated social interaction system (an informal group with minimum structure) into a structured system (an organization). The structure of an organization is based upon and is a function of expectations individuals have of others that become differentiated in the course of interaction.

In an organization which has moved toward the high collegiality end of the continuum, one commonly finds a professional-client relationship among the personnel of the organization. This relationship is an interdependent one in which no one typically exercises authority over another, although there is influence in both directions. Influence has been defined by Lutz (1969) as potential power or capacity. Here, one person would not give orders to another person, but both would take their orders from the situation--legitimation of authority is foreign to the concept of collegiality.

The professional-client relationship is one requiring both self control and participation. One must not consider self control as an absolute concept, for there may be need for more or less of it depending upon circumstances which constantly vary. Though somewhat suspect in traditional organizational patterns, in an organization that is characterized as stressing individuality, specialism of function, interdependence, management by objectives and genuine participation, self control seems to be much more congruent with the larger purposes of the organization.

In a collegial situation information flows freely horizontally and vertically throughout the organization, and individuals participate in collegial groups as equals even though their positions differ as to type and amount of responsibility carried. Participation cannot be used as a manipulative device to "trick" others into accepting a predetermined decision or problem's solution. Those with such an inclination will lose far more than they will gain for such "games" are easy to detect in a collegial environment.

Specialism and interdependence are reciprocal concepts. If one is desired the other is required. A broad range of specialism in an organization can be achieved and made to function effectively by placing people in collegial interdependent roles. To make this arrangement work the need for interpersonal competence must be recognized, and interpersonal skills must be developed through in-service training and rewarded as highly as technical competence.

As groups of individuals pool their physical and ideational resources for more effective problem solving they can make a collaborative exchange with the organization which is more than the sum of the exchanges of the individuals involved in the process. Such an exchange requires an organizational response beyond that which might be provided individuals for their unique part. Synergy or lack-thereof in an institution's operation may well be determined by the degree to which collective exchanges are encouraged and rewarded.

The following pages include questions classified according to the five component parts of the variable Collegiality. Any instrumentation development for this variable should focus on these questions.

1. Interaction of

Personnel

With whom in the organization do I interact?

What is the nature of this interaction--cordial, social, passive professional, client-professional, etc.?

What patterns of interaction have I established?

With whom do I refuse or neglect to interact?

How are the interactions initiated, by whom?

2. Interexpectation

of Personnel

Do the actions of an individual match the expectations I hold for him?

Do the actions of an individual match the expectations held for the position he holds?

Do my expectations concerning my position in a group structure hold up?

Do my expectations concerning group leadership match the structure of the group?

3. Degree of

Interdependence

To what degree is there two-way communication in this organization?

To what degree is my association in the organization programmed by systems of technology, structure, and managerial controls, and to what degree may I choose my interactions?

Does the institution seek to obtain good ideas regardless of their source?

Would my strong objection likely change anything?

Do individuals with different specialities realize that they must be mutually dependent if institutional and personal goals are to be achieved?

4. Interpersonal
Competence

How successful am I in my dealings with colleagues in producing an intended effect in such a way that I may continue to do so?

Are people who work well with people valued as highly as those competent with technology?

To what degree does the institution support a training program for developing interpersonal competence?

Where does authority lie, in the position or with the man?

5. Cooperative Exchange
with the
Organization

Are opportunities afforded by the institution for group problem solving?

Are there incentives which encourage temporary groups of specialized talent to come together in response to problems and then to disperse once solutions are worked out?

What are the benefits for the institution and for the group of specialists once ad hoc problem solving structures are utilized?

PROFESSIONAL DISPOSITION

Professional Disposition

Commitment to the Student

is an organizational variable of social control which differs from administrative control.

Commitment to an Area of Expertise

It reflects a commitment to a code of ethics and a loyalty

Commitment to the Public Trust

to a community larger than that

Commitment to the Profession

found in an employing institution. It is concerned with

the quality of staff effort,

the attitude exhibited towards

career self-fulfillment incentives, and the degree of reciprocity shown by individuals within the organization and outside it as well.

Professional teachers have made certain commitments to the learner, the public, a specialized body of knowledge, and to a community of similarly engaged individuals (which differs from one teacher to another and which is affected by the environment in which that professional must practice his skills).

The variable of Professional Disposition is designed to reflect these commitments and relate them to specific organizational elements found elsewhere in this conceptual model. Whereas most of the other variables of staff use can be measures only of quantity, this measure is essentially one of quality or lack thereof.

This category was developed after researching studies in the Sociology of Professions, the various state and local education association's code of ethics, and literature on inservice teacher education. Darber (1963), Becker (1962) and Corwin (1969) were very helpful in its development.

Based on these sources, a profession can be defined as follows:

A Profession:

1. Involves activities essentially intellectual.
2. Commands a body of specialized knowledge.
3. Requires extended professional preparation.
4. Affords a life career and permanent membership.
5. Requires continuous in service growth, adherence to code of ethics.
6. Sets its own standards, aggressively enforces them.
7. Exalts service above personal gain.
8. Maintains a strong, closely knit professional organization.

The first element of the category (Commitment to the Student) requires the teacher respond to some performance inquiries. Here he will not be asked to indicate a commitment only, he will also be asked to describe the institutional effect on that commitment. The teaching professional has a role vis-a-vis the student and the institution either helps, hinders, or is neutral regarding that commitment.

A specialized body of attitudes and knowledge lends the distinction of professionalism. This component (Commitment to an Area of Expertise) once again is a composite measure of the individual's personal commitment and the degree to which the institution facilitates that commitment. Here the variable is

concerned with one's desire to be current, up to date, forward looking, relevant, and highly trained in a specialized body of knowledge.

A third component (Commitment to Public), not unlike the second, is a measure of the professional's commitment to a code of ethics. Here one must consistently make subtle distinctions between his personal views and those of an institution or organization. The public expects services which go beyond the terms of the contract but does not require them--the professional reciprocates. The teaching professional, like the lawyer, the physician, or the priest, renders services which are difficult to assign a value equivalent. Thus, a moral commitment is very much part of the public trust. This component attempts to determine the teacher's perception of this commitment and how well the institution facilitates it.

The (Commitment to the Profession), the last element of the variable, attempts to reflect the degree to which the teacher considers himself a professional and recognize loyalties to a professional group, whether he is willing to sit in judgment of his colleagues in the fraternity of specialists, and if he seeks consistent improvement of the profession and discourages the practice of the profession by unqualified persons. Once again the institution plays a very large role in the teacher's perception of this commitment.

The four components of the variable are further defined on the following pages. Any instrumentation should be developed from these specifications.

Commitment of the Professional

Measures his own success by the progress of each student's self-actualization.

Encourages the student to independent action in his pursuit of learning.

Considers his relationship with students in terms of influence rather than power.

Recognizes the potential of all students; does not discriminate because of race, creed, sex, color, or ability.

Institutional Facilitation

Designs and supports structures which facilitate the continuous progress of each student.

Provides resources and structures which encourage independent learning on the part of students.

Adopts a philosophy which asserts the worth and dignity of each individual student regardless of past heredity or environmental influences.

Commitment of the Professional

Maintains the highest possible level of expertise in a specialized body of attitudes and knowledge.

Attempts to be pluralistic regarding one's area of specialized expertise.

Recognizes other professionals' specialized expertise and appropriately defers to them.

Involved in the derivation of new knowledge.

Institutional Facilitation

Demands specialized knowledge from its individual staff members.

Rewards levels of specialization and performance on a differentiated scale.

Provides training programs for the staff in-service.

Rewards highly specialized performance regardless of distinctions between teaching and administration.

Commitment of the Professional

Renders services which go beyond the terms of the contract, (e.g., assumes personal responsibility, is creative, demands self-excellence, is sensitive).

Distinguishes between personal views, and institutional views.

Assumes full political and citizenship responsibilities.

Applies specialized knowledge toward the development of sound public policy.

Adheres to a code of ethics endorsed by the professional group.

Institutional Facilitation

Encourages and anticipates service from the staff beyond the stipulations of a contract, but in no way requires it.

Encourages staff to take positions on public issues.

Reflects an Institutional philosophy which reflects the will of the community.

Refuses to compromise a staff member's adherence to a code of ethics.

Commitment of the Professional

Assumes social values which are higher than the self-interests which might exist in the employing institution.

Engages individually and collectively in judgment of colleagues, and is judged by them in accordance with provisions of a code of ethics.

Shows just and equal treatment to all professional members.

Opposes coercion as a means of influence.

Discourages practice of profession by unqualified persons.

Assumes leadership in credentialing innovations.

See Kline (1970).

Institutional Facilitation

Designs and supports structures which allow for peer-evaluation and self-judgment.

Encourages adherence to a professional code of ethics.

Eliminates structures which facilitate coercion, coercion, employment of unqualified, and immoral conduct of staff.

Requires only limited loyalty; allows staff a full professional life.

WORKFLOW STRUCTURES

Assumptions Concerning
Human Behavior

Means of Influence

Philosophy Concerning
Resource Use

Decision-making

Responsibility

Communication

Criteria for
Continuing Assessment

This variable deals with structures underlying the operations of a school.

Essentially it is concerned with a priori assumptions that influence the course an organization follows as it attempts to achieve certain objectives. For example, at the basis of any formal attempt to control human behavior are certain

assumptions concerning human motivation; this variable seeks to identify those assumptions. It also provides a definition of other elements of the workflow structure including means which are employed to influence behavior, the philosophy guiding resource allocation, decision-making, responsibility, communication, and continuing assessment.

The first component of the variable, Assumptions Concerning Human Behavior, provides a description of the basic assumptions of human behavior which underlies all organizational operations. These are assumptions about what motivates humans to seek externally defined goals, what needs humans have, what their personal goals are like, and how they can be induced to render their talents to the benefit of the organization.

The second element, Means of Influence, seeks to define the specific tactics used by the organization to shape the behavior of its employees. These tactics might range from direct coercion with detailed punitive measures clearly understood by all for failure to

adhere to a certain group norm, to the other end of the spectrum where the organization exerts only positive incentives, and the individual is left with the responsibility for controlling his own behavior.

Public schools, like every other organization, must maximize the efficient use of scarce resources toward the achievement of the priority objectives of the institution. The third element describes the philosophy an organization has concerning Resource Allocation. Not all instructional personnel need be "purchased" through capital expenditures; it is not always helpful to consider the human resources of a school in terms of dollar equivalents. This component of the variable will measure how successful a school system is in making full use of the resources available. It attempts to determine, based on the objectives of the system, whether the right kinds of resources are being purchased; whether community volunteerism is carefully tapped for relevant sources of human talent; and whether industry, the military, the local, state, and federal government can provide additional resources for the improvement of instructional programs. In short, this element of the Workflow Structure attempts to determine, that despite limited financing, all options have been fully considered in providing students with the widest variety of resources available to facilitate their learning.

Perhaps most central in this variable is the element of Decision-Making. Sometimes considered synonymous with management, decision-making is the objective behind the structuring of authority. Managerial power is the ability to make decisions for an institution, or to overtly influence that decision-making. This component seeks

to describe the decision-making process of differing staffing arrangements by examining decision sequences, determining which individuals are included or excluded in the process, and assessing the attitudes of individuals in the organization toward the decisions being made. An attempt should be made to discover whether decisions are being made at levels in the organization where the most information exists, and whether the people at those levels with appropriate skills are included in the process.

The element, Responsibility, is closely akin to decision-making, but where decision-making is the objective of structure, the responsibility element represents the structure. In other words, by assigning responsibility in an organization you have structured the decision-making process. The organization can assign responsibility along two dimensions: amount, which limits or extends the scope of one's influence in the organization, and type, which defines the specific nature of one's influence in the organizational structure. Individuals with different types of responsibility are given authority to act in areas of specialized knowledge or skills, but may very well have identical scopes of influence. On the other hand, people in the organization who have been assigned different amounts of responsibility could feasibly perform very similar functions at different levels in an organizational hierarchy.

The Communication element describes the manner in which information is disseminated throughout an organization. Here the intention is to discover the patterns that are developed as information moves from one individual to another or from one organizational level to another. This element should provide a description of who influences the flow of information in what way, and what effect

communication patterns have on goal achievement.

The last element, Criteria for Continuous Assessment, seeks to examine the means with which decision makers come up with their information for acting the way they do. It attempts to define how an individual with program-decision responsibility decides whether to continue a program or revise it, on what basis individuals are added or released from the organization, and what evidence people have that the decisions they make are the most appropriate for a given situation. In essence, this element will assess the degree to which an organization has provided itself with the criteria and organizational structure necessary for continuous self evaluation.

PERPETUATION STRUCTURES

Recruitment	Perpetuation Structures is an
Selection	organizational variable represent-
Credentialing	ing the static dimensions of organi-
Retraining	zational structure. It is, in effect,
Division of Labor	a measure of the structures an
Promotion	institution established in order to
Remuneration	identify, recruit, employ, and
	retain human resources for staffing
	the organization. It is concerned

with the task of resource allocation, bringing new and creative talent into the school staffing pattern as well as obtaining the best efforts of present personnel. It includes the variables which an organization can manipulate directly to provide incentives attractive to prospective employees and represents the formal structuring of those incentives to insure continued accountability, integration, and maintenance of the organizational structure.

Recruitment of personnel may be entirely random without consideration of organizational goals or may be very specific and selective. The first component of this variable seeks to identify the nature of the organization's recruitment policy.

The Selection of personnel after recruitment has succeeded is also directly related to institutional objectives. Here selection of specific talent may be based on the needs of specialized job descriptions in the organization, or people may be employed with little consideration of the nature of goals to be accomplished. This component attempts to identify where a district's selection policy exists along this continuum.

Credentialing of personnel can be viewed in a number of ways. It can be considered entirely outside the jurisdiction of the school, and thusly external credentialing bodies will go unchallenged and personnel will be used within the narrow confines of a standard credential. On the other hand, it may be viewed as the responsibility and prerogative of the teaching profession, and attempts will be made to broaden the base of credentialed resources. Here special consideration might be sought for using extra-legal personnel in the classroom, or for changing the credentialing process to include multiple entry and exit points and non-sequential movement to full or higher certification on the part of teaching professionals. Kline (1970) suggests the development of whole new categories of teaching credentials which would place some credentialing authority directly in the hands of the individual.

Retraining (inservice training) is a component seeking to identify the organization's policy for preventing obsolescence of its teaching methods and knowledge. It is concerned with the means by which teachers and other school personnel are kept up to date. Here again the question must be asked "how do the training programs reflect a conscious effort to achieve the goals of the organization?"

The component, Division of Labor, defines the manner in which human talent is assigned to tasks to be accomplished. Here the focus is on the degree of specialization, both horizontal and vertical, employed to achieve institutional objectives. DeBlois (1970) suggests along with Bennis (1966) and McGregor (1960) that standard bureaucratic principles are no longer appropriate for organizing human talent in the public schools.

Promotion can range from arbitrary advancements in position based on a patrimonial model, to standard carefully monitored incremental promotions based on seniority and education, to performance-based promotions where criteria such as carefully written job descriptions, performance tests, peer- and self-evaluation are used as determinants. This component seeks to identify the specific policy which dictates promotion activities.

Remuneration includes both salary and non-salary benefits for service rendered. This component assesses the nature of the reward system used by an organization to determine if it is internally and externally consistent (i.e., whether it serves as an incentive to attract and keep the best talent in the classroom teaching and planning for the achievement of institutional goals).

The seven components of the variable, perpetuation structures, are specified in more detail in the pages which follow. Instrumentation for this variable should be derived from these specifications.

Recruitment

- + Recruitment policies must be consistent with the dominant objectives of the organization

- + Economic considerations should not be the first consideration in recruitment; the "cost" of the person being sought should match the complexity and skill requirements of the task he will be asked to accomplish.

- + Specific recruitment needs should be determined by the specifications of the job description requiring personnel.

- + Recruitment should be carried out to secure for the district the best possible talent whether it be custodial, clerical, support, instructional, or administrative. Thus recruitment exclusively seeking certified personnel is inappropriate.

- + The recruitment policy must demonstrate an awareness of the numerous alternatives available. When highly qualified personnel are unavailable to fulfill a specified position there are more attractive alternatives than filling the position with non-qualified persons.

- + The recruitment policy a school adopts shapes and "prescribes" the human composition of that school for years to come. The recruitment policy is an effective entry point for change within the system.

Selection

- + Selection of personnel should be based on the organizational objectives as expressed in carefully written job descriptions.
- + A person should be chosen for a particular position based on his possessing skills relevant to tasks the person filling that position must accomplish.
- + The selection of personnel should be a multilateral decision, or a unilateral decision based on selection criteria worked out through the process of consensus.

Certification

- + Certification is rightfully the concern of a body of professionals. Once the teaching profession demonstrates competence in handling the responsibility, it is likely to gain the prerogative from other agencies currently holding authority.
- + Certification should have a performance base. A person's ability to perform (output), rather than the type or length of training he has received (input), should be assessed to determine how he will be credentialed.
- + Certification should reflect the varied specialities required in the modern educational environment. A standard certificate should give way to a wide variety of instructional certificates, all supported by training programs with multiple entry and exit points.

Certification (cont'd.)

- + Whether or not the teaching profession eventually ends up with the authority to issue teaching certificates, there should be a commitment for flexibility so that human talent can be used where it is most effective.

Retraining

- + With the knowledge explosion and the present rate at which new information is being generated, it is essential that school personnel be engaged in continual inservice training.
- + Inservice training should be a regular part of an educator's activity and should in no way be secondary or tangential. It should be a line budget item, scheduled within a contractual agreement, and supportive of the ongoing instructional program.
- + Remediation rather than dismissal is the answer to deficiencies of the teaching staff.
- + Planned change and educational innovation can best be accomplished through a systems approach to inservice education.
- + It is doubtful that infrequent training sessions conducted without detailed planning will have much effect on the behavior of school personnel.
- + Training sessions should be conducted in such a way as to fulfill the individual learning needs of the school personnel involved.

Retraining (cont'd.)

- + The training offered should ultimately be determined by the dominant objectives of the organization and the individual objectives of the personnel involved.

Division of Labor

- + Teacher's assignments should be differentiated along a number of variables in order to achieve the major objectives of the organization.
- + Horizontal differentiation of task infers the usage of a variety of skilled personnel, specialists in different instructional functions with similar authority, amounts of responsibility and salary.
- + Vertical differentiation of assignment requires people be assigned differing amounts of authority and responsibility, in hierarchal fashion, and receive different salaries as a function of the different responsibilities they carry.
- + Differentiated salaries without differentiated responsibilities antithetical to the concept of using school personnel more effectively.
- + Knowledge accumulated during recent decades challenges and contradicts the classical principles of organization which have prescribed certain patterns for assigning work-tasks.

Division of Labor (cont'd.)

- + The traditional bureaucratic pyramidal structure with its rigid line and staff authority relationships and its concepts of chain of command, span of control, and impersonality is inappropriate for the fluid and rapidly changing conditions found in modern educational environments.
- + Flexibility in the use of staff may best be accomplished by organizing school personnel around temporary problem solving systems of diverse specialists, with diffused authority and responsibility.

Promotion

- + Promotion must be based on performance. Seniority and college transcripts may be used as secondary considerations.
- + Promotion should be an incentive used by the institution for keeping the best talent directly involved in the instructional process.
- + In public school, where resources are always scarce, promotion should be a means through which an organization can make superior talent available to larger numbers of children.
- + Classroom instructional personnel should be provided promotion incentives, which allow them to advance yet remain teachers, that are equal to those which are provided administrators and other non-instructional personnel.

Promotion (cont'd.)

- + Promotion policies should be understood and agreed upon by all personnel in the organization.

- + The process for selecting people for promotion should be logical and based on criteria for selection that were developed through a representative process.

- + The evaluation of one's effectiveness in a job must be guided by clearly specified job specifications (the requirements of the job) and carried out through a method previously agreed upon by all personnel subject to evaluation.

- + Interpersonal competence, technical competence, creativity, ambition, drive, professional dedication, and inborn personality traits should all be considered as a staff develops a set of criteria for evaluating their individual effectiveness.

- + Promotion based on performance criteria cannot be tenured; otherwise continued high performance in the new position would not be subject to enforcement.

- + Tenure might be a function of a specified index, at a base salary for all, but not tied to any specific job description.

- + Increased status as well as increased salary provides an incentive which should be considered in the promotion policies of a school organization. Promotion in the instructional area should provide the person as much increased status as a similar promotion in the administration or other non-instructional areas.

Promotion (cont'd.)

- + Evaluation for promotion (or demotion) should include self-judgments, peer-judgment, judgments of superiors, and student judgments.

Remuneration

- + No simple panacea exists for rewarding differentiated teaching talent.
- + A more complex formula than the simple single salary schedule is required if teaching talent is to be properly motivated and used more effectively.
- + Remuneration must be tied to the type of responsibility and the amount of responsibility one carries, his performance on the job, and certain acquired characteristics which increase the quality of his performance.
- + The salary a person receives should be determined by combinations of the following variables as dictated by the goals of a school system.
 - \$ = The amount of responsibility carried.
 - \$ = The type of responsibility carried.
 - \$ = The nature of one's expertise.
 - \$ = One's natural talents.
 - \$ = The degree held (number of college credits).
 - \$ = The amount of previous experience (seniority).
 - \$ = One's ability to fulfill performance criteria.
 - \$ = Performance of one's students (pre- and post-measure).
 - \$ = Evaluation by superiors.
 - \$ = Evaluation by peers.
 - \$ = Evaluation by students.
 - \$ = Evaluation by self.
 - \$ = Number of extra curricular assignments.
 - \$ = One's desire to receive non-salary remuneration (free time, special assignments, etc.).

SYSTEMS SELF-RENEWAL

Educational needs assessment

Philosophy, process goals, product goals, objectives

Instructional Model: scheduling, resource use, curriculum

Training for implementation

Implementation and evaluation

ACCOUNTABILITY

Production (student achievement)

Efficiency (time and money)

Maintenance of structure (morale and drive)

Systems self-renewal and accountability are two variables of the conceptual model which make up the process and product dimension of the model. Essentially they compose, at a very general level, the processes which may occur as an organization attempts to achieve its objectives. The sub-component of the variable, systems self-renewal, describe a comprehensive systems approach to planning, and describe an organization's movement along a continuum where at one end schools operate empirically, intuitively, and historically, and at the other where schools are involved in detailed and systematic planning for self-renewal. The variable provides a means for determining where any particular school may be operating along that spectrum at any point in time. Geisert, et. al., (1970) offers a detailed explanation of a self-renewal model which was developed in conjunction with this model.

Instruments designed to measure this variable should take into account the questions asked in the primitive instrument which follows.

SYSTEMS SELF-RENEWAL

Respond to the following questions on the matrix provided.

1. The school is functioning on a historic basis. In general there are no built-in methods of initiating change in the system.
2. A problem has arisen which cannot be solved under the old structure, and a status study is made to answer the question: Where are we now?
3. The school has a written school philosophy which includes: 1) institutionalized change, 2) spending of money for R & D with an expectation of a proportion of failure, 3) democratizing of self-assessment procedures, and 4) the recognition of the worth and rights of all individuals, especially students.
4. There is a periodic review of the school philosophy by the staff, students, and community, for validity amid changing social values.
5. There is an assessment procedure and it is found that there is a consensus to implement the school philosophy into the activities of the school.
6. The consensus to implement the school philosophy is communicated to all the segments of the school community.
7. Alternative ways to implement the school philosophy through process goals are prepared and listed.
8. There is an assessment procedure and it is found that there is a consensus to implement the process goals.
9. The school staff is writing a set of product objectives.
10. An evaluation system is developed which includes some or all of the following evaluation techniques: 1) method of assessing community, staff, and student attitudes, 2) cost/effectiveness evaluation, 3) follow-up study on graduates and drop-outs, 4) student, staff, community relevancy assessment, 5) an experimental approach to evaluation, 6) a validity check of the evaluation system, and 7) the establishment of criteria and standards for school objectives.
11. The school has a written set of product objectives.
12. The evaluation is made to determine if the product objectives relate to the process goals.
13. There is an assessment procedure and it is found that there is a consensus to implement the product objectives.

SYSTEMS SELF-RENEWAL (cont'd.)

14. A design for an instructional model is developed which clearly states the structure and process by which the previous plans are implemented.
15. There is an assessment procedure and it is found that there is a consensus to implement the instructional design.
16. The fully designed instructional program is implemented and is operational.
17. The previously developed evaluation procedures are instituted.
18. The first cycle is completed and a recycle for periodic review is underway.

Please check the appropriate column to indicate which of the following conditions best describe your present situation.

- A. The statement describes a prior condition but no longer describes our situation.
- B. The statement describes our present situation.
- C. This condition is in the planning stage.
- D. After thorough planning we are implementing this condition.
- E. We have considered this and have decided not to implement this condition.
- F. This condition is irrelevant to our present situation.
- G. "Make comments" column.

Questions	A	B	C	D	E	F	G
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							

Accountability is a variable of the conceptual model which focuses on the assessment of goal achievement. In essence it is a form of summative evaluation which requires an examination of the organization's products in terms of its objectives. Ultimately this variable should measure to what degree a staffing innovation is successful in achieving its objective of improving student learning, how efficient it is in doing so, and the degree of probability the structure will be capable of continuing that level of production and efficiency. Short of this type of accountability another measurement of more limited goal achievement might be used, where, for example, a school would determine how successful it was in attracting and keeping "better" persons in the teaching profession, at what level of efficiency this was done, and the probability this might be continued.

Just as a systems self-renewal model is provided, an accountability model structures this variable. Neither of these should be considered prescriptive in any form; they merely provide an evaluator with the dimensions of certain organizational variables which facilitate the evaluation of a wide variety of differing staffing innovations.

The question and answer matrices which follow provide a more detailed view of the intent of the variables under consideration. Continued refinement of these primitive instruments should result in useful tools for describing school systems along the process/product dimension.

ACCOUNTABILITY

Please respond to the following questions on the matrix provided.

1. Our school system uses a line budget which results in the following conditions:
 - A. The budget does not directly tie resource input to desired educational output.
 - B. The budget does not allow for the consideration and prediction of the impact of current decisions on future aspects of the system.
 - C. The budget serves mainly the cost accountant and comptroller; it is not a decision making tool.
 - D. The budget is the school's major accountability tool; as such, it is a system of historical records of financial transactions that report legal and prudential positions.
2. We have assessed whether some segment(s) of the educational community, i.e., parents, tax payers, students, staff, administration, and/or board of education are dissatisfied with the historical system of accountability.
3. An analysis is made of the problems represented by the dissatisfaction with accountability.
4. A listing of alternative solutions to the accountability problem is made.
5. A decision is made to change the system.
6. The decision to change the system is disseminated to all elements of the educational community.
7. A plan from among the alternatives is chosen for future study.
8. The decision is made to implement a system for program planning budgeting.
9. The decision to implement a PPB system is disseminated to elements of the educational system.
10. The decision is made whether to implement this system in a pilot study or school-wide study.
11. The data necessary to implement a program planning budgeting system are collected.

ACCOUNTABILITY (cont'd.)

12. The instructional costs are itemized and summarized.
13. The performance objectives are written.
14. The physical facilities and fixed costs are determined from the line item budget.
15. Student and community attitudes and comments are used to guide the development of the instructional program.
16. A PPB system and the accompanying instructional program are operational.
17. The outputs of our PPB system and the instructional program are compiled.
18. The cost effectiveness of the program is evaluated.
19. The behavioral outputs are evaluated.
20. All segments of the educational community are satisfied to date. If not, a major revision is underway.
21. The results of the program are disseminated.
22. The program is revised each year.
23. The PPB system is fully implemented and operating.

Please check the appropriate column to indicate which of the following conditions best describe your present situation.

- A. The statement describes a prior condition but no longer describes our situation.
- B. The statement describes our present situation.
- C. This condition is in the planning stage.
- D. After thorough planning we are implementing this condition.
- E. We have considered this and have decided not to implement this condition.
- F. This condition is irrelevant to our present situation.
- G. "Make comments" column.

Questions	A	B	C	D	E	F	G
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							

Bibliography for INTRODUCTION

- Argyris, Chris, Interpersonal Competence and Organizational Effectiveness, (Homewood, Illinois: The Dorsey Press, 1962).
- Balke, Wight E., "Concept of the Social Organization," Modern Organization Theory, Mason Haire, ed., (New York: Wiley, 1959).
- Barber, Bernard, "Some Problems in the Sociology of the Professions," Daedalus, December, 1963, pp. 669-683.
- Becker, Howard S., "The Nature of a Profession," taken from Education for the Professions, Sixty First Yearbook of the National Society for the Study of Education, G. L. Anderson, ed., (Chicago: University of Chicago Press, 1962).
- Bennis, Warren G., Changing Organizations: Essays on the Development of Human Relations, (New York: McGraw-Hill Book Company, 1966).
- Bhaerman, Robert D., A Study Outline on Differentiated Staffing, American Federation of Teachers Quest Report #2.
- Burns, Tom, "A Comparative Study of Organizations," Methods of Organizational Research, Victor H. Vroom, ed., (Pittsburgh: University of Pittsburgh Press, 1964).
- Corwin, Ronald G., "Enhancing Teaching as a Career," Today's Education, Vol. 55, March, 1969, p. 55.
- Foster, Garrett R., A Five Year Evaluation of the Nova Secondary School, Department of Educational Research, Florida State University, Tallahassee, Florida, 1970).
- Gaiser, Paul, et. al., "A Comprehensive Model of School Staffing," Unpublished paper, 1970.
- Likert, Rensis, New Patterns of Management, (New York: McGraw-Hill Book Company, Inc., 1961).
- McGregor, Douglas, The Human Side of Enterprise (New York: McGraw-Hill Book Company, Inc., 1960).
- Owens, Robert G., Organizational Behavior in Schools, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970).
- Simon, Herbert A., The New Science of Management Decisions, (New York: Harper & Row Publishers, 1960.)
- Stogdill, Ralph, "Dimensions of Organizational Theory," Approaches to Organizational Design, James Thompson, ed., (Pittsburgh: University of Pittsburgh Press, 1966).

Bibliography for INDIVIDUALISM

- Bendix, Reinhard; Lipson, Seymour M., "Jobs and Occupations: A Popular Evaluation," Class, Status and Power: A Reader in Social Stratification, (Glencoe, Illinois: The Free Press, 1953).
- Homans, George C., Social Behavior: Its Elementary Forms. (New York: Harcourt, Brace and World, Inc., 1961).
- Maslow, A. H., Motivation and Personality. (New York: Harper and Row, Inc., 1954).
- McNair, Malcom P., "Thinking Ahead What Price Human Relations?" Harvard Business Review, (March-April, 1957).
- Miller, David, Individualism, Personal Achievement and the Open Society. (Austin, Texas: University of Texas Press, 1967).
- Prince, George H., The Practice of Creativity, (Cambridge, Mass.: Synectics, Inc., 1968).
- Rogers, Carl, On Becoming a Person. (Boston: Houghton Mifflin, 1961).
- Shepherd, Clovis R., Small Groups: Some Sociological Perspectives. (San Francisco: Chandler Publishing Company, 1964).
- Whyte, William Foote, Money and Motivation. (New York: Harper & Brothers, Publishers, 1955).

Bibliography for PROFESSIONAL DISPOSITION

- Cogen, Charles, "The Teacher and Educational Change," Inventing Education for the Future, Hirsch, Werner A., and Colleagues, (San Francisco, California: Chandler Publishing Company, 1967).
- Dickson, George E., Remaking the World of the Career Teacher, National Commission on Teacher Education and Professional Standards, National Education Association, (U. W. Washington: The Association, 1966).
- Hubbard, Frank W., and Davis, Hazel, "The Construction of Salary Schedules for Teachers," Harvard Educational Review, Spring 1952, 22:33.
- Koerner, James D., The Miseducation of American Teachers, (Boston: Houghton Mifflin, 1963).
- Lieberman, Myron, Education as a Profession, (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1956).
- McClure, Robert, and Sand, Ole, "If We are to be Leaders," NEA Journal, December 1967, pp. 29-31.
- McGregor, Douglas, The Human Side of Enterprise (New York: McGraw-Hill Book Company, Inc., 1960.)
- NSF, Systems for Measuring and Reporting the Resources and Activities of Colleges and Universities; National Science Foundation, NSF 67-15. "The Full Professional Life: Its philosophy and its description through activity concepts."
- National Education Association Ethics Committee, Interpretations of the Code of Ethics of the Education Profession, (Washington, D. C.: The Association, 1966).
- Smith, Othanel B., and Colleagues (Ed.), Readings in the Social Aspects of Education, (Danville, Illinois: Interstate Printers and Publishers, 1951).
"What is a Profession," A. H. Carr-Saunders; "The Professions and Freedom in the Modern World," Alfred North Whitehead; "Two Bases of the Educator's Authority," B. O. Smith, W. O. Stanley, J. H. Shores.
- Stinnett, T. H., Professional Problems of Teachers, (New York: Macmillan Company, 1963).
- Thompson, V. A., "Organizational Dimensions," Wilson Library Bulletin, 42:693-700, March 1963.
- Tyler, Ralph, "Distinctive Attributes of Education for the Professions," Social Work Journal, XXIII, April 1952, 52-62.
- Atlin, Alma S., "The Teacher," Daedalus, December 1963, pp. 745-763.

Bibliography for WORKFLOW STRUCTURES

- Adelson, Marvin, "Educational Ends and Innovational Means," Inventing Education for the Future, ed. W. Z. Hirsch, San Francisco: Chandler Publishing Company, 1967.
- Argyris, Chris, Organization and Innovation, Homewood, Illinois: The Dorsey Press, 1965.
- _____, "Towards 'Truly' Scientific Management: The Concept of Organizational Health," General Systems Yearbook, December 1962.
- Burns, Tom, "A Comparative Study of Organizations," Methods of Organizational Research, ed. Victor H. Vroom, Pittsburgh: University of Pittsburgh Press, 1964.
- Drucker, Peter F., "Integration of People and Planning," Harvard Business Review, Vol. XXXIII, No. 6, (November-December, 1955).
- Goodlad, John I., "School Organization," Teacher's Handbook, ed. Dwight W. Allen and Eli Seifman, Chicago: Scott, Foresman & Co., in press.
- Howton, William F., Functionaries, Chicago: Quadrangle Books, 1969.
- Learned, Edmund P.; Sproat, Audrey T., Organization Theory and Policy: Notes for Analysis, Homewood, Illinois: Richard D. Irwin, Inc., 1966.
- Leavitt, H. J., "Effects of Certain Communication Patterns on Group Performance," Journal of Abnormal Social Psychology, Vol. XLVI, (1951), pp. 38-50.
- Likert, Rensis, New Patterns of Management, New York: McGraw-Hill Book Company, Inc., 1961.
- Lutz, Frank W.; Iannaccone, Laurence, Understanding Educational Organizations: A Field Study Approach, Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.
- March, James G., ed. Handbook of Organizations, Chicago: Rand McNally & Company, 1970.
- McClure, Robert A.; Ole Sand, "If We are to be Leaders," NEA Journal, December 1967.
- Shepard, H. A., "Changing Interpersonal and Intergroup Relationships in Organizations," Handbook of Organizations, ed., J. March, Chicago: Rand McNally & Co., 1965.
- Simon, Herbert A., The New Science of Management Decisions, New York: Harper & Row Publishers, 1960.

Bibliography for PERPETUATION STRUCTURES

- Allen, Dwight W., "A Differentiated Staff: Putting Teacher Talent to Work," Occasional Papers No. 1, NCFEPS, National Education Association, 1967.
- Allen, Dwight W.; Kline, Lloyd W., "From Habit to Heresy and Home Again: The Roots and Route of Differentiated Staffing," Differentiated Staffing, James M. Cooper, ed., Philadelphia: W. B. Saunders Co., in press
- The Center for Coordinated Education, Synergetics and the School, University of California at Santa Barbara, California, 1966.
- The Center for the Study of Educational Innovations, 16mm film, Dwight W. Allen, "Differentiated Staffing," School of Education, University of Massachusetts, 1967.
- Edelfelt, Roy, ed., Remaking the World of the Career Teacher, Washington, D. C.: NCFEPS, National Education Association, 1966.
- Edelfelt, Roy A., "The Teacher and His Staff," New York State Education, 5:16-19, October, 1967.
- Edelfelt, Roy, The Teacher and His Staff: Differentiated Roles for School Personnel, Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1970, p. 5.
- English, Fenwick W., "Differentiated Staffing: Refinement, Reform or Revolution?" ISR Journal, Vol. I., No. 4, (Fall, 1969), p. 224.
- Frinks, Marshall, "A Readiness for Differentiated Staffing: Questions Relevant to Development and Training Activities," Information Report #2, Department of Education of Florida, October, 1969.
- Goodlad, John I., Educational Change: A Strategy for Study and Action, Dayton, Ohio: Institute for Development of Educational Activities, Inc., 1969. (Reprinted from The National Elementary Principal, December, 1968).
- Kline, Lloyd W., Requestive Schooling Organizing for Individuals, Unpublished dissertation, University of Massachusetts, 1970.
- Lieberman, Myron, The Future of Public Education, Chicago: University of Chicago Press, 1960.
- Massachusetts Federation of Teachers, Questions and Answers About Differentiated Staffing, Lynn, Massachusetts: Spring, 1969.
- McTeema, Bernard H., School Staffing Patterns and Pupil Interpersonal Behavior: Implications for Teacher Education, Burlingame, California: California Teachers Association, 1967.

_____, Staffing the Schools, New York: Bureau of Publications, Teachers College, Columbia University, 1965.

Miller, Richard I., Education in a Changing Society, Washington, D. C.: Project on the Instructional Program of the Public Schools, National Education Association, 1964.

National Education Research Division, Teacher Supply and Demand in Public Schools, Washington, D. C.: The Association, 1965.

Rand, J.; English, F. W., "Toward a Differentiated Teaching Staff, Phi Delta Kappan 49:264-8, January, 1968.

The Temple City Unified School District, Temple City, California.
A Project Proposal: The Temple City Differentiated Staffing Project, Submitted to the United States Office of Education under the Educational Professions Development Act, Division of Program Administration, Bureau of Educational Personnel Development, 1968.

Bibliography for SYSTEMS SELF-RENEWAL/ACCOUNTABILITY

- Clark, C., Design for an Educational System Cost-Effectiveness Model, U. S. Office of Education, ERIC ED 025044, 1967.
- DeBloois, M.; Geisert, P., "A Comprehensive Model of School Staffing," Unpublished paper, 1970.
- Foster, Garrett, "The Karlsruhe Evaluation Model," Unpublished Paper, 1970.
- Green, M., Program Planning Budget System for the University School of Florida State University, Published by the College of Education, Florida State University, 1969.
- Grobman, Hulda, Evaluation Activities of Curriculum Projects, AERA Monograph Series #2, New York, Rand McNally, 1968.
- Hartley, Harry, Educational-Planning-Programmin-Budgeting, A Systems Approach, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.
- Lyden, Fremont J.; Miller, Ernest G., eds., Planning-Programming-Budgeting: A Systems Approach to Management, Chicago: Markham Publishing Company, 1967.
- Mosher, Frederick C., Program Budgeting, Theory and Practice, New York: American Book-Stratford Press, Inc., 1954.
- Path, Gustave J., "PPBS is More Than a Budget: It's a Total Planning Process," Nation's Schools, No. 5, November, 1963, pp. 53-55.
- SBT Associates, Inc., System Analysis, Program Development, and Cost-Effectiveness Modeling of Indian Education for the Bureau of Indian Affairs, Bureau of Indian Affairs, Department of the Interior, 1969.
- States-Local Finances Project, Planning for Educational Development in a Planning, Programming, Budgeting System, CEF, NEA Committee on Educational Finance, Washington, D. C.: The George Washington University.