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OF SCHOOL BOARD DECISIONS.

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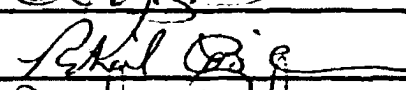
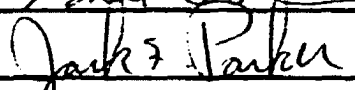
A SYSTEMS THEORY CONTENT ANALYSIS OF  
SCHOOL BOARD DECISIONS

A DISSERTATION  
SUBMITTED TO THE GRADUATE FACULTY  
in partial fulfillment of the requirements for the  
degree of  
DOCTOR OF EDUCATION

BY  
GARLAND M. HOLLARS  
Norman, Oklahoma  
1969

**A SYSTEMS THEORY CONTENT ANALYSIS OF  
SCHOOL BOARD DECISIONS**

**APPROVED BY**

**DISSERTATION COMMITTEE**

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# A SYSTEMS THEORY CONTENT ANALYSIS OF SCHOOL BOARD DECISIONS

## CHAPTER I

### INTRODUCTION

This study is concerned with ideas developed in the social sciences under the general heading of systems theory. The concepts of functionalism, structural functionalism, and functional systems have been found useful in anthropology, sociology, and political science.

The first attempts to develop a theory that would show the relationship between systems and subsystems took place in the physical sciences. The development of the term General Systems Theory and many of the initial concepts about the theory are credited to the imminent German scientist Ludwig von Bertalanffy.<sup>1</sup> General Systems Theory is concerned with developing a systematic, theoretical framework for describing general relationships of the empirical world. The social scientists later revised and refined the original

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<sup>1</sup>Ludwig von Bertalanffy, "An Outline of General Systems Theory," British Journal Philosophy of Science, X, 1950.

ideas in almost as many ways as there have been contributors to this method of studying sociological and psychological relationships. A common assumption of these methods appears to be that structures perform functions in systems and that systems tend to be self-regulating.

A number of political and social scientists are investigating the possibility of applying the ideas associated with systems theory to political and social phenomena. Gabriel Almond and David Easton, among others, have contributed much to this endeavor. Easton's efforts have been devoted mainly to theoretical pursuits. His latest book has been used rather extensively as background material for this study.<sup>2</sup> This comparatively new theoretical approach in the field of comparative politics is receiving increased attention and interest. This has largely taken the form of applications of "systems" theory to the study of politics. Also, the business world is increasingly using the systems approach in analyzing its operations for efficiency.

In a current book, which he co-authored and helped edit, Almond sets forth a framework which he later uses in attempting to explain and predict the political development of the emerging new nations in the "non-western" areas of the world.<sup>3</sup>

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<sup>2</sup>David Easton, A Systems Analysis of Political Life (New York: John Wiley and Sons, Inc., 1965).

<sup>3</sup>Gabriel A. Almond and James S. Coleman (eds.), The Politics of the Developing Areas (Princeton: Princeton University Press, 1960).

Almond has developed his framework further in an article published recently in World Politics.<sup>4</sup> His framework includes four general characteristics of systems:

(1) the concept of interdependence, (2) the idea of equilibrium, (3) the notion of comprehensiveness, and (4) the characteristic of boundaries. Almond's framework includes inputs, conversion, and outputs. Two kinds of inputs were mentioned, demands and supports. He lists three general functions: conversion, adaptation-maintenance, and capability. The function of political communication is relevant to all of these previously listed characteristics. Also, Almond's framework has four kinds of outputs: extractions, regulations, symbols, and allocations.

While the development and application of this framework was primarily intended for use in political science, Scribner has made a unique application of it.<sup>5</sup> He investigated the possibility of adapting the framework to the study of the decision making processes of local boards of education. Scribner's objective was to determine whether all the actions of a board of education could be encompassed within the framework. His general procedure was a content analysis

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<sup>4</sup>Gabriel A. Almond, "A Developmental Approach to Political Systems," World Politics, Vol. XVII, No. 2 (January, 1965), pp. 183-214.

<sup>5</sup>Jay D. Scribner, "A Functional Systems Analysis of School Board Performance," (Unpublished Doctoral dissertation, Stanford University School of Education, 1966).

of the official minutes of school board meetings. A Classification was made of each action of the board as recorded in the board minutes according to concepts and definitions included in the framework. Scribner limited his endeavor to the use of board minutes of one board of education. He came to the conclusion that this framework did present some possibilities for research in educational administration.<sup>6</sup>

### The Need for the Study

Local school boards are continually striving to perform in ways that will satisfy the people in their communities and the school systems which they serve. These performances are extremely varied among school boards in different towns, cities, and states. Because of the complexities and variations of school boards in different locations, there was a clearly evident need to develop new procedures for analyzing the performance of school boards.

In 1958 Halpin edited a collection of writings that was designed as a progress report of administrative theory at that time.<sup>7</sup> He emphasized the desirability of the use of theory in educational administration. Also, he summarized the contributions of other writers in this field. One of the major difficulties in the development of theory is

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<sup>6</sup>Scribner, p. 95.

<sup>7</sup>Andrew W. Halpin (ed.), Administrative Theory in Education (University of Chicago: Midwest Center, 1958).

the problem of communication. Halpin emphasized this by the following statements:

. . . that we listen to each other, that we listen to each other with respect, that we feel free to raise critical - even damning - questions, but without malice or antagonism, and that we stand ready to answer such searching questions, but without defensiveness. We must all recognize that we are engaged in solving . . . a 'mutual' problem. To accomplish this, each of our co-operating disciplines must forego any claim to a monopoly on wisdom.<sup>8</sup>

The increased attention given to the theory in research in educational administration is evidenced by the titles in the editions of the Review of Educational Research<sup>9</sup> for the last few years. However, the actual use of theory in the conduct of research in educational administration has been much less frequent than would have been expected. Lipham stated that "Getzel's theory of administration as a social process continues to represent the most useful theory in the field of educational administration."<sup>10</sup> Halpin and Croft's conceptualization of the "organizational climate" has also begun to stimulate numerous studies in the theoretical field

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<sup>8</sup>Halpin, p. 18.

<sup>9</sup>The American Educational Research Association, Review of Educational Research, Educational Organization, Administration and Finance, Vols. 25, 28, 31, 35, No. 4 (Washington, D. C.: The Association, 1955-58, 61-64).

<sup>10</sup>James M. Lipham, "Organizational Character of Education: Administrative Behavior," Review of Educational Research, Educational Organization, Administration and Finance, Vol. 34, No. 4 (Washington, D.C.: The American Educational Research Association, 1964), p. 435.

of educational administration.<sup>11</sup> However, not many frameworks are available for theory oriented research and very few of those available are being put to any practical use.

### Purpose of the Study

Little evidence has been found in the literature that would indicate that efforts to apply systems theory concepts in studying the performance of local boards of education have progressed appreciably beyond the theoretical stage. This study will attempt to develop the theoretical ideas that have been advanced in the social sciences to the point that they can be used in a practical manner in school board research.

### The Problem

The problem of this study was four-fold.

1. To extend the systems theory model developed by Almond and Easton to the study of school board decisions.
2. To develop an instrument derived from an extended model for use in making a systems analysis of school board decisions.
3. To test the instrument developed by applying it to sets of school board minutes from selected school districts in Oklahoma.
4. To test the productivity of a systems theory model for analysis of school board decisions.

Some salient research questions related to this problem are:

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<sup>11</sup>Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, 1963).

1. Do the model and derived instrument permit school board minutes to be analyzed as an input, conversion, output process?
2. Do the minutes of the meetings of boards of education reflect the conversion processes that actually took place?
3. Do school boards differ in the conversion processes used to convert inputs into outputs?
4. Is there a relation between the differences in conversion processes and outputs?
5. What is the relation between inputs and different conversion processes?
6. What are the variables that effect the relations between inputs, conversions and outputs?

#### Delimitation of the Problem

One of the primary objectives of this study was to develop an instrument that would be an aid in the systematic study of school board decisions. The development and application of the instrument was based on source material concerning decisions made by boards of education.

The material which was used in developing the instrument and demonstrating its use was taken from the official minutes of fourteen boards of education in Oklahoma. The minutes of five meetings of each board of education were examined and the decisions were classified according to previously defined classifications. It was felt that this number of boards, with five meetings each, would provide sufficient source material to adequately test the instrument and to demonstrate some of its uses.

The instrument may be used to classify and record



the number and type of inputs into the system - the board of education. Also, it may be used to record the number and type of conversion processes which are in the minutes and it may be used to study the number and type of outputs from the system. However, the focus of this study was limited to the conversion process.

Although it is beyond the scope of this study to do so, it is conceivable that by applying this procedure in enough cases, a so-called success pattern might evolve which would indicate desirable school board procedures. This would make it possible to better predict the future success of the board and to better explain why some boards "fail" while others "succeed."

### Definition of Systems

A system is an organized or complex whole; an assemblage or combination of things or parts forming a complex or unitary whole. The word system connotes plan, method, order and arrangement. The antonym of systematic is chaotic.<sup>12</sup>

The systems concept is primarily a way of thinking about a process. It provides a framework for visualizing internal and external environmental factors as an integrated whole. It takes into consideration the relationships of the subsystems to each other and to the whole. Systems theory and organizational theory are both concerned with the investigation and performance of the organization as an integrated

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<sup>12</sup>Richard A. Johnson, Fremont E. Kast and James E. Rosenzweig, The Theory and Management of Systems (McGraw-Hill Company, Inc., New York, New York, 1963), p. 4.

whole. Systems concepts emphasize the integration of all activities toward the accomplishment of overall objectives, but also recognize the importance of efficient subsystems performance.

General Systems Theory is a name which has come into use to describe a level of theoretical model-building which lies somewhere between the highly generalized constructs of pure mathematics and the specific theories of the specialized disciplines. It is a series of related definitions, assumptions, and postulates about all levels of systems from atomic particles through atoms, molecules, crystals, viruses, cells, organs, individuals, small groups, societies, planets, solar systems, and galaxies. General behavior systems theory is a subcategory of such theory, dealing with living systems, extending roughly from viruses through societies.

The term "systems" has become increasingly common in the titles of texts and monographs in the area of comparative politics. The use of the concept of systems reflects the entrance into political theory of the theory of functionalism from anthropology and sociology. The main social theorists whose ranks are associated with functionalism are the anthropologists Malinowski and Radcliffe-Brown and the sociologists Parsons, Merton, and Marion Levy. Though they differ in their concepts of system and function, what they have been saying is that our capacity for explaining and predicting changes in the social sciences is increased when we think of

social structures and institutions as performing functions in systems.

Although there has been much research concerning minute segments of knowledge, there is increasing interest and activity in developing larger frames of reference for combining the results of such research. Thus, more attention is being placed on over-all systems as frames of reference for analytical work in various fields.

### Design of the Study

The selection of the school boards for study was determined by the accessibility of the board records and the attitude of the board members and school administrators toward the study. Copies of the minutes of a total of fourteen boards of education were obtained. The minutes for the meetings of February, June, August, September, and November of 1968 were chosen to test the instrument in doing research in school board decision making.

A questionnaire was used to obtain information concerning the variables of school board membership stability and total millage voted by the school district. Twenty questionnaires were sent out to school districts which were chosen in such a way as to give satisfactory material for comparison. Sixteen questionnaires were returned within two weeks. The information from fourteen of those returned was actually utilized in doing the comparative portion of the study. The school districts were ranked according to size

by the number of teachers listed in the Oklahoma Educational Directory for 1968-69.

### Method of Research

The research technique known as content analysis was used. Berelson defines content analysis as "a research technique for the objective, systematic and quantitative description of the manifest content of communication."<sup>13</sup> The purpose of content analysis is to organize relatively unstructured material to make it more easily understood. In order for an analysis to be classified as content analysis, it must meet the requirements of proper syntactic and semantic treatment, objectivity, system, and quantification.

Berelson lists a number of assumptions concerning content analysis which are accepted for purposes of this study. One of the most pertinent ones is that "the content analyst assumes that the 'meanings' which he ascribes to the content, by assigning it to certain categories, correspond to the 'meanings' intended by the communicator and/or understood by the audience."<sup>14</sup>

It is generally agreed that the most difficult task in using content analysis is the establishment of the categories. The categories for this study were developed by

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<sup>13</sup>Bernard Berelson, Content Analysis in Communication Research (New York: The Free Press of Glencoe, Inc., 1952), p. 18.

<sup>14</sup>Berelson, p. 19.

classifying the actions of a school board according to definitions taken from systems theory. It was a tentative conclusion that twenty-four categories would be needed in developing the instrument for this study. No effort was made to differentiate in the magnitude or the intensity of the different items classified on the instrument. This decision was influenced mainly by Pool's statement concerning the measuring of intensity.

But the experience of more than one analyst who has tried refinements in measuring intensity has been that nothing much is added by other measures than the frequency one. That would suggest that at least in a large class of forms of verbal expression much of the total variance in intensity is accounted for by the one component, frequency.<sup>15</sup>

A content analysis was done on the source material and the actions of the school boards were classified according to previously defined categories. The actions of the board that should be classified in the conversion category were recorded in that category and counted. The school boards were then ranked according to the total number of conversions that were recorded for the five selected regular board meetings. The school board with the greatest number of conversions was ranked number one, the board with the next largest number of conversions was ranked number two, and so on with the board having the smallest number of conversions being ranked number fourteen. Spearman's

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<sup>15</sup>Ithiel DeSala Pool (ed.), Trends in Content Analysis (University of Illinois Press, Urbana, Illinois, 1959), p. 194.

rank-difference coefficient, more commonly known as Spearman's rho, was calculated to determine the relationship between this ranking and three other variables pertaining to the school boards: (1) the size of the school district, (2) the total millage voted by the school district, and (3) the stability of the membership of the boards of education.

Definitions associated with systems theory were collected and recorded in such a way as to be useful in conjunction with the instrument in recording and studying the decisions made by boards of education. A general background of systems theory was given, followed by a discussion of the application of systems theory to school board action. Also, an instrument was developed which may be used to record each action of the board as classified by the coding system. Provisions were made on the form for entering information gained from numerous sources, such as the agenda of the meeting, interviews with board members, the official minutes of the board meeting, and the newspaper accounts of the decisions which were made during the meetings.

#### Organization of the Study

This dissertation is organized into five chapters. The background of the problem area is given in this first chapter. The need for the study was established, a method of procedure was developed and basic terms were defined.

Chapter two presents a review of literature. Writings in the fields of anthropology, sociology, political science

and business management are reviewed. The information gained from these sources was utilized as background material for developing the application of systems theory concepts to school board procedures.

The third chapter discusses some of the major characteristics of general systems theory and explores the possibilities of adapting them to research in school board decision making. A systems model for studying the actions of boards of education is described and examples of different systems concepts, as adapted to this type of research, are given. Other systems concepts, which may have significance for future studies in this area, are discussed. The development of the instrument is also discussed in this chapter.

The application of the coding and recording system is described in chapter four. The conversion functions of the boards of education are noted and tabulated. The boards are ranked according to the total number of conversion processes performed during five regular board meetings. The degree of relationship between this ranking and some other variables possessed by the boards of education is explored. An attempt is made to give examples for the sake of clarification of the concepts.

The final chapter presents a summary with problems and suggestions for future research. The degree of refinement of the systems concepts as used in this study is discussed. Comments are made and questions raised concerning

the suitability of the coding and classifying procedures. . . .  
Conclusions are stated concerning the utilization of the  
systems approach to studying educational administration,  
especially the performance of boards of education.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

The ideas and concepts presently associated with systems theory have come from a number of academic disciplines. A discussion of the development of these concepts is given in conjunction with a review of school board research studies. The growing association of these two movements is noted later in the chapter in connection with the discussion of the application of some of these concepts to school board research.

#### Contributions From Anthropology

Anthropologists have contributed much to this method of scientific inquiry. The chief theorists among this group are Malinowski and Radcliffe-Brown. Malinowski stressed the relationship between the biological needs of the individual and the culture.<sup>1</sup> Radcliffe-Brown was mainly concerned with the relationship between the structure of the social system and the functions which maintained the structure.<sup>2</sup> In this

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<sup>1</sup>Bronislaw Malinowski, A Scientific Theory of Culture (Chapel Hill: University of North Carolina Press, 1944).

<sup>2</sup>A. R. Radcliffe-Brown, Structure and Function in Primitive Society: Essays and Addresses (Glencoe: The Free Press, 1952).

setting, functionalism was studied in terms of either the relationship of certain characteristics to the culture as a whole, or of the whole culture to the characteristics of the culture.

Radcliffe-Brown and Malinowski stressed the relationship between the culture and the individual. Their propositions focused upon the maintenance processes of the sociological and cultural systems and the relationships of institutions such as family, political organizations, law, religion, etc. Through this approach, functionalism provided a focus upon the functional relationships and associations between the parts of a culture. These studies were considered to be among the first in the structural-functional approach being used recently in social science.

#### Contributions From Sociology

A significant attempt to develop a reputable theory of structural-functionalism was made by Parsons in his book, The Social System.<sup>3</sup> Parsons developed the term "social action" for his basic unit of exploration. He was influenced in the development of his theory of social action by the teachings and writings of the eminent German sociologist, Max Weber. Parsons maintained that action involved the person doing the acting, his environment, and the relationship between the one acting and the environment. He stresses

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<sup>3</sup>Talcott Parsons, The Social System (Glencoe: The Free Press, 1951).

the relationship of the actor to his environment and specifies three separate systems which are pertinent: the social system, the personality system, and the cultural system.<sup>4</sup>

A number of basic ideas are set forth in Parson's writings concerning structural-functionalism. First, man's social activities are goal directed and can be analyzed in terms of systems. Second, man is able to make generalizations from his past experiences and thereby develop a more stable pattern of behavior. Third, a man has certain needs and value-standards; for instance, a need to acquire proper responses and a tendency to give proper responses which agree with his personal value-standards and the generally accepted behavior of other individuals in the social situation. Parsons considered the characteristics of pattern maintenance, adaptation and integration, and goal attainment to be functional requisites of the social system.

Another sociologist who has made a substantial contribution to the development of the ideas associated with structural-functionalism is Robert Merton. He based his assertions on the proposal that the "functional analysis depends upon a triple alliance between theory, method, and data."<sup>5</sup> Merton maintained that much of the work being done in the functional orientation was unnecessary and its

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<sup>4</sup>Talcott Parsons and Edward A. Shils (eds), Toward a General Theory of Action (Cambridge: Harvard University Press, 1951), Parts I and II.

<sup>5</sup>Robert Merton, Social Theory and Social Structure (Glencoe: The Free Press, 1957), p. 19.

reliability was rather debatable. He was rather critical of the claims made for the concepts of functional unity, universal functionalism, and indispensability.

Some of Merton's more important contributions have been the development of clarification of ideas of functional versus dysfunctional characteristics, functional prerequisites and functional alternatives, and latent and manifest functions. His discussions on the manifest and latent characteristics of the political society are conceded to be one of his most fruitful efforts. He specified manifest functions as those that were intended and recognizable. Latent functions are those that are not planned and are not ascertainable.

In his book, The Structure of Society,<sup>6</sup> Marion Levy has attempted to combine the approaches of Parsons and Merton. However, he asserted that functional analysis is not something new. Levy indicated that the only thing that was new was the name being used in referring to it - structural functional analysis.

Levy did offer one of the better definitions for structural functionalism by breaking the definition into two parts. He defines function as "a condition, or state of affairs, resultant from the operation of a structure

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<sup>6</sup>Marion J. Levy, The Structure of Society (Princeton: Princeton University Press, 1952).

through time" and a structure as "a pattern, i.e., an observable uniformity of action or operation."<sup>7</sup>

#### Contributions From Business Management

The business world is making considerable application of the method of systems theory in studying some of its problems of management. The systems concept is a way of looking at a job or situation. It is more of a way of thinking about and analyzing a procedure than it is a certain method of doing something. This is emphasized by the following statement: "It provides a framework for visualizing internal and external environmental factors as an integrated whole. It allows recognition of the proper place and function of subsystems."<sup>8</sup> The focus of using the systems approach to management is to provide a better picture of the network of subsystems and their relationships to each other and to the entire system.

While much of the research in business in the past has been exerted largely on the analysis of small isolated bits of knowledge, there is increasing interest in developing larger frameworks for viewing the operation as a united whole. This has caused attention to be focused more and more on over-all systems as frameworks for analyzing work in other areas as well as in the business field.

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<sup>7</sup>Levy, The Structure of Society, p. 56-57.

<sup>8</sup>Johnson, Kast and Rosenzweig, The Theory and Management of Systems (McGraw-Hill Company, Inc., New York, New York, 1963), p. 1.

The increasing use of this technique in business is clearly revealed in remarks made recently by Peter G. Peterson. Mr. Peterson, who is President and Chief Executive Officer of Bell and Howell Company, was the keynote speaker at the National Conference of State Legislators in Washington, D.C. on December 4, 1966. He made the following statements while referring to the contributions that business can make to educating the class of 1984:

Business is also increasingly utilizing another extraordinarily powerful tool in managing complex situations. You all know the words . . . systems analysis. This is a technique, and more than this, a point of view heavily stimulated by some of the incredibly complex and interrelated tasks of the space and military effort.

One looks at objectives, at alternatives, at inputs, at outputs, at costs, at benefits, at sequence and schedules, and tries to think through early in a project, before serious mistakes or big commitments are made, which routes seem best.

For example, let us thus look at this colossus, the complex clogged city we referred to earlier. If the problem of the American city is looked at as it often is by an unrelated group of specialists, one person sees a housing problem; another a civil rights problem; another a transportation problem, and so forth.

Of course, all of these experts are right in their own way. I hope, incidentally, the big city problem doesn't turn out to be like the educational toy that was recently advertised as helping young students adjust to the complexities and frustrations of the modern world. Any way you put the toy together is wrong.

Obviously, the disease of the city is a disease of the whole body politic and it is unlikely to be diagnosed or cured by specialists dissecting one piece at a time.

However convenient it would make it for us, the problems of our cities are not neatly organized into separate compartments that match the organizational structure of ten or more Federal agencies dealing with cities.

The city probably requires systems analysis techniques. Already major companies are exploring how they can help apply their systems skills into city planning. I believe that these systems analysis and long range planning techniques also have great relevance to the school system.<sup>9</sup>

Johnson describes a very interesting framework which he calls the Hierarchy of Levels Framework.<sup>10</sup> He discusses systems theory in general and then applies it to business management. He lists nine levels in the hierarchy: (1) the static structure - an example of this is the anatomy of the universe frameworks, (2) a simple dynamic system - predetermined necessary motions, or this level could be called simply "clockworks," (3) control or cybernetic system - or "thermostat," (4) "open system" or self-maintaining structure - this is the level of the cell, (5) genetic level - societal level: botanist - plants make up this level, (6) animal system, (7) human level, (8) the social system, and (9) transcendental systems - the ultimates, absolutes, the inescapables and the unknowables. Johnson uses this framework to separate the levels of the different systems from the lowest or least

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<sup>9</sup>Peter G. Peterson, The Class of 1984 . . . Where Is It Going?, National Committee for Support of the Public Schools, p. 9, (Washington, D.C., December 4, 1966).

<sup>10</sup>Richard A. Johnson, et al, "Systems Theory and Management," Management Science, Vol. X, January, 1964, pp. 367-384.

complicated level of the static structure to the transcendental systems.

Johnson mentioned the control or cybernetic level in his hierarchy of levels of systems. This term is becoming rather commonplace in the discussions of theory of management in business. The word cybernetic comes from an old Scottish word meaning "the steersman" and is associated with many discussions concerning control and regulation.

Regardless of the degree of progress at any certain level in the above scheme, hierarchy of levels, the point to keep in mind as far as this study is concerned is the concept of a general systems theory. It is generally agreed that the spectrum, or hierarchy, of systems covers a considerable range. However, this is not the main consideration since the systems concept is primarily a point of view and a desirable goal, rather than a particular content area or methodical approach. Advancement can be made as research proceeds in various specialized areas. This progress will necessarily take place within a total system context.

Young<sup>11</sup> developed a very interesting application of the systems approach to hospital business management, a model for administering a fairly large hospital. He asserted that the use of his model for hospital management would result in a more smoothly run operation with more people understanding just exactly what was done and why.

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<sup>11</sup>Stanley Young, Management: A Systems Analysis (New York: Scott Foresman, 1966).



Young's model borders on a procedural manual for taking certain actions in a well defined sequence. The general operating policies were to be formulated by specified supervisors. All policy statements and administrative decisions were to be handled in a prescribed manner. The model explicitly spelled out who was to make the decisions, under what circumstances they were to be made, and how they were to be administered. The process is a fairly structured one.

One of the more sophisticated applications of the systems approach in business management is a model called Program Evaluation and Review Technique, which is often referred to by its abbreviated title, PERT. This process is a tool for scheduling and integrating the different operations of a manufacturing procedure so that the component parts will be ready to be supplied to the major project at the right place and at the proper time. The proper application of this type of system will result in better coordination of the different subsystems with each other and the system itself.

One of the better discussions of the application of the PERT model to a business management situation is given by Miller in his book, Schedule, Cost and Profit Control with PERT.<sup>12</sup> Also, Cook explores the possibilities of the

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<sup>12</sup>Robert W. Miller, Schedule, Cost and Profit Control with PERT (New York: McGraw-Hill Publishing Company, 1963).

application of the PERT model to educational systems in a book which has been published recently.<sup>13</sup>

### Contributions From Political Science

Early in 1950, political scientist David Easton began his initial efforts to revise the existing political theory. Easton is given credit for being "the first political scientist to write about politics in explicit 'systems' terms."<sup>14</sup> The development of his theory was more nearly associated with the organic systems approach to political theory than with structural-functionalism. He distinguishes between two classes of inputs into the political system. These are demands and supports.

Easton's assertion that political theory desperately needed revision is demonstrated in his book, The Political System.<sup>15</sup> He maintains that political scientists should stop constructing historical and ethical theories and concern themselves more with the possibilities of developing theories based on experience.

Easton's efforts to move toward a more empirically based theory culminated in two books. The first, A Framework

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<sup>13</sup>Desmond L. Cook, Program, Evaluation, and Review Technique: Application in Education (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1966).

<sup>14</sup>Gabriel A. Almond, "A Developmental Approach to Political Systems," World Politics, Vol. XVII, No. 2, (January, 1965), p. 192.

<sup>15</sup>David Easton, The Political System: An Inquiry Into the State of Political Science, (New York: The Mac-Millan Company, 1953).

for Political Analysis, set forth the major concepts which prepared the way for the development of this type of theory in political science.<sup>16</sup> The second, A Systems Analysis of Political Life, stated that "the task will be to put that structure of concepts to work and, in doing so, to elaborate them further so that they can be more readily applied to empirical situations."<sup>17</sup>

In the preface Easton emphasized his purpose in writing this book by the following statement: "Our problem will be the deceptively simple one: How does it come about that any type of system can persist at all, even under the pressures of frequent or constant crises?"<sup>18</sup> Easton sets forth the idea that a system is imbedded in an environment which exerts pressures on it, threatening to force the essential variables of the system beyond their tolerance. His framework for analyzing political systems has been developed in an attempt to answer the following questions:

1. What precisely is the nature of the influences acting upon a political system?
2. How are they communicated to a system?
3. In what ways, if any, have systems typically sought to cope with such areas?
4. What kinds of processes will have to exist in any system if it is to acquire and exploit the potential for acting so as to ameliorate these conditions of stress?<sup>19</sup>

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<sup>16</sup>David Easton, A Framework for Political Analysis (New York: Prentice-Hall, 1965).

<sup>17</sup>David Easton, A Systems Analysis of Political Life (New York: John Wiley and Sons, 1965), p. vii.

<sup>18</sup>Easton, A Systems Analysis, p. vii.

<sup>19</sup>Easton, A Systems Analysis, p. 33.

One of the basic accomplishments of Easton's endeavor has been the development of a model which employs the cybernetic feedback characteristic which is present in the physical sciences. (See Diagram #1.) His model begins with an input of either a demand or a support from the systems environment. These inputs are subsequently channeled through the conversion process and changed into outputs of decisions. These outputs go into the surrounding environment with some of their effects being fed back into the original source which in turn will influence future behavior of the system. Easton emphasized the importance of the feedback procedure by this statement:

It is by virtue of the role that information feedback plays in a system - the volume and accuracy of the information it provides, the delays in the transmission of this information, the direction in which it flows, and the behavior in the forms of outputs that it inspires - that the authorities possess an essential means to mold and shape objectives in order to seek to cope with the stress inherent in the decay of support.<sup>20</sup>

Easton expended a substantial amount of effort in developing and discussing the conversion process and describing the method by which inputs are changed to outputs. Almond contended that the conversion functions performed by various structures in the political system were essential in the life of the system.<sup>21</sup> Scribner pays tribute to Easton's

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<sup>20</sup>Easton, A Systems Analysis, p. 366.

<sup>21</sup>Almond, A Developmental Approach . . . , p. 189.

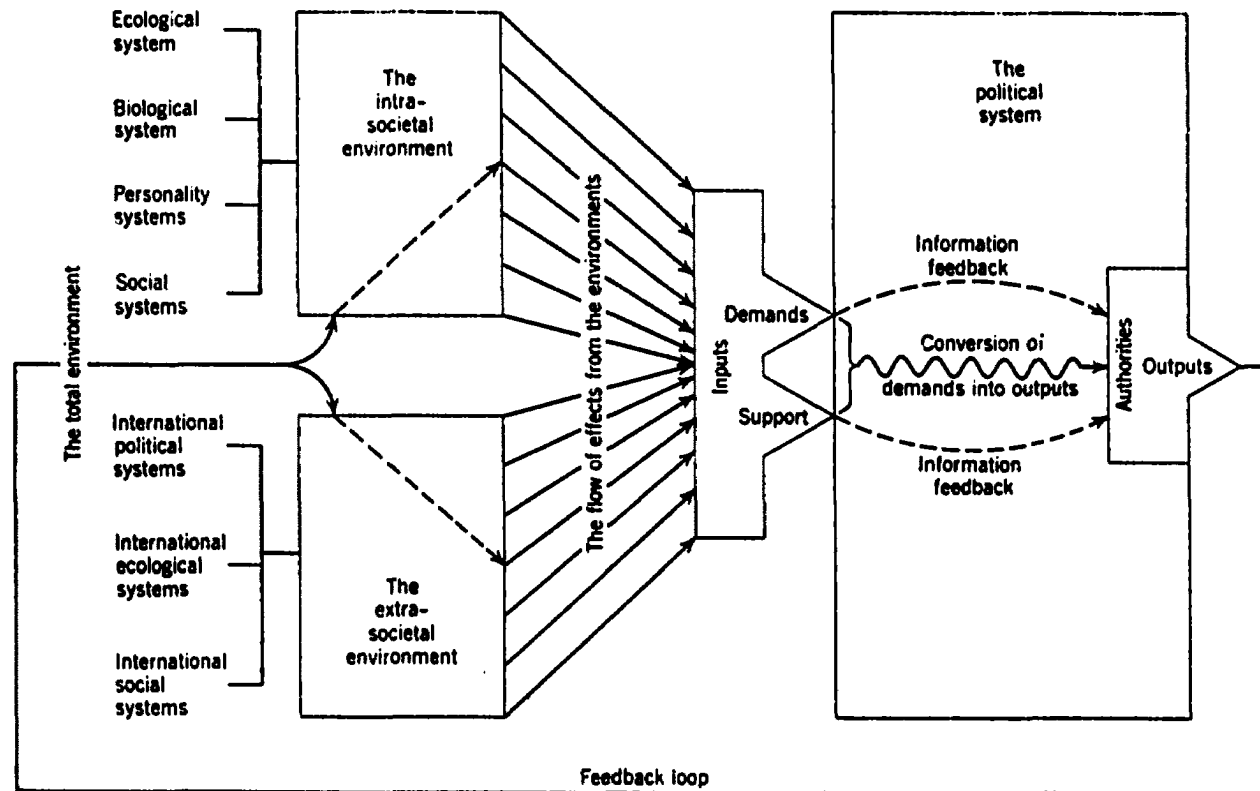


DIAGRAM 1 A DYNAMIC RESPONSE MODEL OF A POLITICAL SYSTEM

accomplishments by the following comment: "Easton's two major contributions appeared to be, first, illuminating the way toward substantive theory in political science, and second, a comprehensive delineation of a framework for the analysis of a political system."<sup>22</sup>

Almond asserts in his preface to a recent book that he plans to do two things.

The first is to construct a theoretical framework that makes possible, for the first time, a comparative method of analysis for political systems of all kinds. The second is to offer a comparative analysis of the political systems of those areas of the world in which dramatic social and political changes are taking place - Asia, Africa, and Latin America.<sup>23</sup>

Almond maintains that to make a meaningful approach to explanation and prediction concerning these emerging new "non-western" areas of the world, we must answer this very important question: What are the common properties of all political systems? He suggests that there are four characteristics which all political systems have in common, and in terms of which they may be compared.

First, all political systems, including the simplest ones, have political structure. In a sense it is correct to say that even the simplest societies have all of the types of political structure which are to be found in the most complex ones. They may be compared with one another according to the degree and form of structural specialization.

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<sup>22</sup>Scribner, p. 30.

<sup>23</sup>Gabriel A. Almond and James S. Coleman (eds.), The Politics of the Developing Areas (Princeton: Princeton University Press, 1960), p. v.

Second, the same functions are performed in all political systems, even though these functions may be performed with different frequencies, and by different kinds of structures. Comparisons may be made according to the frequency of the performance of the functions, the kinds of structures performing them, and the style of their performance.

Third, all political structure, no matter how specialized, whether it is found in primitive or in modern societies, is multifunctional. Political systems may be compared according to the degree of specificity of function in the structure; but the limiting case, while specialized, still involves substantial multifunctionality.

Fourth, all political systems are "mixed" systems in the cultural sense. There are no "all-modern" cultures and structures, in the sense of rationality, and no all-primitive ones, in the sense of traditionality. They differ in the relative dominance of the one as against the other, and in the pattern of mixture of the two components.<sup>24</sup>

Almond's framework is based on the functional aspects of the political system. He maintains that the differences in political systems may be utilized to predict their future and to explain their weaknesses.

One of the functions of the political system which Almond uses in his framework is Political Socialization and Recruitment. This concept states that "all political systems tend to perpetuate their cultures and structures through time, and that they do this mainly by means of the socializing influences of the primary and secondary structures through which the young of the society pass in the process of maturation."<sup>25</sup> It should be noted that socialization should

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<sup>24</sup>Almond and Coleman, p. 11.

<sup>25</sup>Almond and Coleman, p. 27.

not denote a static impression but is a process of induction into the political system. Some interesting comparisons and differentiations are made by Almond in his examination of the non-western countries. One of his main observations is that all but a few of the seventy-six countries covered in his study have seriously fragmented political culture. Argentina, Chile, Costa Rica, Uruguay, Turkey, Israel and the Phillipines were a few of the countries whose political culture had some degree of homogeneity. Almond maintains that the differences in the degree of these characteristics makes it possible to come to some significant conclusions concerning their ability for survival.

Another part of the framework is Interest Articulation. "Every system must have some way of articulating interests, claims, demands for political action."<sup>26</sup> This function is closely associated with the political socialization function of the culture. There are distinctive ways of bringing these claims and demands to the authorities in the different countries.

A third function, listed as being useful in examining political systems, is the function of Aggregation. "Aggregation may be accomplished by means of the formulation of general policies in which interests are combined, accommodated, or otherwise taken account of, or by means of the

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<sup>26</sup> Almond and Coleman, p. 33.



recruitment of political personnel, more or less committed to a particular pattern of policy."<sup>27</sup> The functions of articulation and aggregation are similar in some cases and often overlap. Almond concluded that the countries that were the most similar in the aggregation function are the Phillipines and Turkey.

The fourth function in the framework is the Political Communication Function. This is a very important function in the framework, for all other functions are dependent upon it for their effectiveness. However, the communication function must be separated from the other political functions to be useful in distinguishing among political systems and characterizing their performance. In order to utilize this function to study political systems, Almond separates the communication function into the following aspects: (1) the homogeneity of political information; (2) the mobility of information; (3) the volume of information; and (4) the direction of the flow of information.<sup>28</sup> He concludes that in all but a few of the countries of Africa-Asia and Latin America there are gross discontinuities in political communications.

The governmental functions of Rule Making, Rule Application and Rule Adjudication are the last portion of this framework. These have to do with the legal structure and functions of the authorities. There are significant

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<sup>27</sup>Almond and Coleman, p. 39.

<sup>28</sup>Almond and Coleman, p. 50.

differences among the countries included in the study as to the methods in which the rules are made and applied and in which two opposing opinions are adjudicated.

Recently, Almond refined and extended his framework even further.<sup>29</sup> This article is an effort to define political development and takes into account the variables which affect it. Almond maintains that our capacity for explanation and predicting is improved when we think of social structures as performing functions in systems. He states that functional systems theory implies three conditions: (1) functional requisites, (2) interdependence, and (3) equilibrium. There are boundaries of systems across which exchanges must be made with its environment. This notion alludes to the three phased process of input, conversion, and output whereby members of a political system may attempt to relieve the stress placed on the system. The capability of a system is determined by its ability to relieve these stresses.

According to Almond,

By observing structures we can explicate what distinctive jobs are being done in the conversion functions. The six classification functions are: (1) the articulation of interest into demands, (2) the aggregation or combination of interests into policy proposals, (3) the conversion of policy proposals into authoritative rules, (4) the application of general rules to particular cases, (5) the adjudication of rules in individual cases, (6) the

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<sup>29</sup>Gabriel A. Almond, "A Developmental Approach to Political Systems," World Politics, Vol. XVII, No. 2 (January, 1965), pp. 183-214.

transmission of information about these events within the political system and between the political system and its environment.<sup>30</sup>

Almond asserts that,

The aim of research on political systems must be: (1) to discover and compare capability profiles summarizing the flows of inputs and outputs between these political systems and their domestic and international environments, (2) to discover and compare the structures and processes which convert these inputs into outputs, and (3) to discover and compare the recruitment and socialization processes which maintain these systems in equilibrium or enable them to adapt to environmental or self-initiated changes.<sup>31</sup>

He lists five categories of political capability. They are the ability to meet the following demands: (1) extractive, (2) regulative, (3) distributive, (4) symbolic, and (5) responsive. His general conclusion is that a political system must meet these demands at a satisfying level in order to persist.

Scribner<sup>32</sup> attempted a unique application of the systems concepts to school board analysis. He endeavored to adapt Almond's framework to the analysis of the decision making processes of a board of education. According to Scribner,

The purpose of this study was: (1) to develop a set of concepts for classifying events related to the performance of school boards; (2) to specify properties of the concepts; and (3) to ascertain the

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<sup>30</sup>Almond, "A Developmental Approach," World Politics, p. 195.

<sup>31</sup>Almond, World Politics, p. 203.

<sup>32</sup>Scribner, "A Functional-Systems Analysis of School Board Performance."

applicability of the functional-systems approach for future research in the field of educational administration.<sup>33</sup>

Scribner examined the minutes of six meetings of a board of education and attempted to identify the inputs and outputs of the school board system. Each decision of the board was examined in order to be classified according to his adapted systems framework. One of Scribner's objectives was to define and classify the types of inputs into the school board system. One of the findings of his study was that 56% of the input demands were extractive in nature, 37% were demands for regulations, and 7% were symbolic in nature.

Another characteristic of the framework, about which Scribner drew some conclusions, was the method by which the inputs were placed into the board system. According to his classification 42% of the inputs were transferred from the school community by the board members, 38% were initiated by the board members themselves during the course of the meeting, and he was unable to determine how and where the other 20% originated.

The nature and quantity of the outputs from the board system were discussed. Scribner concluded that 60% of the outputs were in response to extractive inputs, 34% could be classified as regulatory in nature, and 6% of the outputs

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<sup>33</sup>Scribner, p. 2.

were symbolic in nature - responses to requests for public displays or other types of laudatory activities.

Although a conclusion of Scribner's study was that a systems framework did seem to have value in doing future research in educational administration, there still remained the need to develop methods and procedures for making this type of research useful in doing significant studies of school board decisions.

The method used by Scribner to compile, code and organize the findings was not clear in the study. Some of the concepts were defined in an obscure manner and would have been difficult to apply in actually doing practical research. The coding and classifying procedure for handling the data needed more clarification and some inconsistencies seemed to exist in the examples that were given. A number of the results and conclusions were given without their source being sufficiently explained. It seems that the use of more source data would have enhanced the validity of the study and would have made more useful conclusions possible.

#### A Survey of School Board Research Studies

Education is primarily the state's responsibility. However, this function is largely delegated to the local community with responsibility for administration placed in a board of education. Since the early part of the twentieth century the local public school board has become more and

more of interest to those who are concerned with the degree of authority and power that is delegated to the school board by the state legislatures. The increase in school board responsibility over the past few years is related to the increasing size of the school systems. An American Association of School Administrators survey of district reorganization showed a decrease in the number of school systems from 1932 to 1961 of 127,649 to 36,402.<sup>34</sup> While the total number of school systems has diminished, the total number enrolled in school has risen during this same period by approximately 15,000,000 students. Also, it was shown by this survey that the number of school board members has been reduced from 400,000 to 140,000. These changes in the size of school districts, number of school board members, and increasing complexity of school management have resulted in increasing demands concerning finances, personnel, and similar matters. Thus, the collective force of these changes has caused a growing concern about the activities of the school board. This growing concern about the way school boards function has caused interested persons to use various social science techniques and methods in attempts to study this level of the school system.

The next part of this chapter is divided into two parts; a history of the early studies of school boards, and

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<sup>34</sup>American Association of School Administrators and the Department of Rural Education of the National Education Association, School District Reorganization: The Journey That Must Not End (Washington, D.C., AASA, 1962), p. 4.

a discussion of the more recent studies. Within these two broad categories, attention is focused on the fact that many studies are centered on the individual board member.

In the past the concentration of research on the school board as a subsystem of the larger school system has been more frequently directed toward the individual board member rather than the entire school board. These early studies were usually in the form of surveys, and provided information that was more applicable to the behavior of the school board member as exhibited in social situations. This kind of educational research in school administration was generally in the form of specific testimonials and survey literature. School boards have been discussed in national magazines since the early nineteen hundreds and some rather comprehensive studies of the characteristics of the school board member have been made. In 1955, Charters reviewed seventy-five surveys on board member characteristics and observed that this kind of study was being completed at a rate of about four each year.<sup>35</sup>

These early studies of school boards were of little value in developing a theory of educational administration because the statistics that were used were very crude and unsophisticated. Charters observed that these research activities "posit a priori assumptions regarding the social

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<sup>35</sup>W. W. Charters, Jr., "Beyond the Survey in School Board Research," Educational Administration and Supervision, XLI, No. 8 (December, 1955), p. 449.

characteristics which are most desirable to board members."<sup>36</sup> Another observation was that these kinds of studies make assumptions that analytical studies attempt to establish by experimentation. Also, a number of the earlier studies based their assumptions upon the opinions of the "authorities" in school administration.

The activities of school boards have been studied more recently by using a more analytical approach. Most of the recent studies have been concerned primarily with the individual school board member rather than the total school board. The usual objectives were to indicate which person was best suited to serve as a board member. Charters discusses the procedure that was used in these studies as follows:

. . . (a) establishing some criterion by which highly-qualified board members can be singled out from among the less qualified board members and (b) isolating those social characteristics which distinguish the highly-qualified members from the others.<sup>37</sup>

Many data sources have been used in trying to determine board member competence in a number of studies, including questionnaires, superintendent's ratings, voting records, interviews for determining attitudes and motivations, board minutes and other similar data. It is generally agreed

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<sup>36</sup>W. W. Charters, Jr., "Research on School Board Personnel: Critique and Prospectives," Journal of Educational Research, XLVII, No. 8 (January, 1954), pp. 449-452.

<sup>37</sup>Charters, XLVII, p. 450.



that voting records would differ on different issues when board members have different social characteristics.

Examples of studies using superintendent's ratings were the studies by Bowman<sup>38</sup> and Gross.<sup>39</sup> Gross stated that one out of five superintendents asserted that their school boards were a major obstacle in carrying out their professional obligations. Bowman studied the extent to which superintendents participated in the decision-making process of the board of education.

The motivations or values of school board members were analyzed by Abbott.<sup>40</sup> It was one of his conclusions that board members tend to hire superintendents who have the same general values and motivations that the board members have. Also, if differences between the individual members of the board of education and the superintendent were to develop, that each would respect the viewpoint of the other if these differences were understood beforehand.

Other studies reveal some interesting reasons for persons serving on boards of education. The desire for

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<sup>38</sup>Thomas R. Bowman, "Participation of Superintendents in School Board Decision-Making," Administrator's Notebook, Vol. II, No. 5 (January, 1963), pp. 1-4.

<sup>39</sup>Neal Gross, Who Runs Our Schools (New York: John Wiley and Sons, Inc., 1959).

<sup>40</sup>Max G. Abbott, "Values and Value-Perceptions in Superintendent-School Board Relationships," Administrator's Notebook, Vol. IX, No. 4 (University of Chicago: Midwest Administration Center, 1960), pp. 1-4.

satisfying personal goals is often instrumental in the member's decision to serve on the board. Discord and disruption of the effectiveness of board operation is often the result of placing personal preferences before the basic educational needs of the community. Some members have political aspirations and see the position of board member as a possible vehicle to a higher political office rather than a place for improving or providing a better education for the young people of the school district.

A review of literature concerning board membership indicated that over half of the school boards in the United States have five to seven members; usually an ex-officio member serves as secretary; and nearly always at the first meeting of the year or following a school board election a chairman is selected. In some instances, a mayor or other city official serves on the board, but this is not a general rule. Hall's study, Provisions Governing Membership on Local Boards of Education, discloses the following "highlights" regarding the membership of school boards:

Three to six-year terms of office are most common for school board members.

There are practically no legal limitations on the number of terms a board member may serve.

More than 95 percent of all local school boards are elected by popular vote.

Any qualified voter is eligible for board membership in most school districts.

Candidates for boards of education are most commonly — nominated by petition of qualified voters.

A majority of board members are chosen on a non-partisan basis at separate elections.

Most board members are chosen from the school district at large.

Vacancies are likely to be filled by remaining members on elected boards and by the appointing agency on appointed boards.

Compensation for school board members is the exception rather than the rule.<sup>41</sup>

The previously mentioned studies are similar in that their focus is upon the individual board member. In the past the majority of these studies were descriptive surveys. Very few analytical studies were made and almost none focused upon the entire unit of the school board membership. A few years ago Charters made a generalization about the nature of school board studies that seems unchanged to the present. He observed that before determining what constituted a competent board member, research needed to be launched to discover the functions of the entire school board.<sup>42</sup> The present study is concerned with the action of the board as a whole rather than with actions of individual members. Because of the complexities and variations of school boards in different places, it is clearly evident that a new method is needed to analyze the performance of school boards.

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<sup>41</sup>Morrell M. Hall, Provisions Governing Membership on Local School Boards of Education (Washington, D.C.: U. S. Department of Health, Education and Welfare, 1957).

<sup>42</sup>Charters, XLVII, p. 451.

Much criticism has been leveled at boards of education in the last few years, some constructive and some not. A few critics have even gone so far as to advocate the curtailing of school board power or even complete abolition of the school boards as we know them. Most of the early studies were in the form of the normative survey while the more recent studies have been inclined toward a more analytical approach. A substantial number of the earlier efforts focused on the social characteristics of the school board member or the relationship between social characteristics and other variables. Few of the studies have been directed at the performance of the school board as a group. The need for a new theoretical framework appeared to be the major reason for the lack of this kind of analysis. A framework was needed that would include all, or as many as possible, of the activities of boards of education.

#### Systems Theory and School Board Action

The aim of applying systems theory to school board action is to develop an objective, understandable environment for decision making, that is, if the system within which the boards of education make decisions can be provided as a well defined framework, then such decision making should be easier to understand.

It seems plausible to examine school board actions in terms of systems theory concepts in the light of what Miller concluded from meetings at the University of Chicago

in 1949. An attempt was made in these meetings to develop a general theory of behavior which could be tested in empirical situations. According to Miller,

It soon became clear that we would need to have much patience if we were to eventually develop a common language. Of the various possible integrations of the relevant data, we have found most profit in what we call general behavior systems theory.<sup>43</sup>

Systems are bounded areas in space and time. Energy interchange takes place among the parts of the system, which are associated in functional relationships, and with the environment of the system.

Under this concept of planning (systems concept) the organization is not a collection of separate functional activities, but a system in which the flows of information, materials, manpower, capital, equipment, and money are the basic forces which determine the organization's growth and effectiveness. It stresses the dynamic nature of these flows and their constant interaction. Many of the modern techniques of communication and decision making have utilized the concept of flows. Figure 2 is a simplified chart depicting the general flow of decision making of a board of education.

The need for general systems theory is accentuated by the present sociological situation in science. Knowledge in writing is not knowledge if nobody knows it. The spread

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<sup>43</sup>J. G. Miller, "Toward a General Theory for the Behavioral Sciences," American Psychologist, Vol. X, (January, 1955), p. 513.

of specialized deafness means that someone who ought to know something that someone else knows isn't able to find out for lack of generalized ears. It is one of the main objectives of General Systems Theory to develop a procedure to enable one specialist to catch relevant communications from others. According to Boulding,

General Systems Theory is the skeleton of science in the sense that it intends to provide a framework of structure of systems on which to hang the flesh and blood of particular disciplines and particular subject matters in an orderly and coherent corps of knowledge. It is also, however, something of a skeleton in a cupboard - the cupboard in this case being the unwillingness of science to admit the very low level of its success in systematization.<sup>44</sup>

The statement made by Johnson, Kast and Rosenzweig concerning a business firm is certainly applicable to the operations of a school board: "The management of a business firm can solve many of its problems and improve its operating efficiency by adopting the systems concept and operating the business as a system."<sup>45</sup> Systems theory is analogous to the principle of integrating parts within a whole. Therefore the principle of integration is vital in the systems concept.

The first attempt to study the school, using the

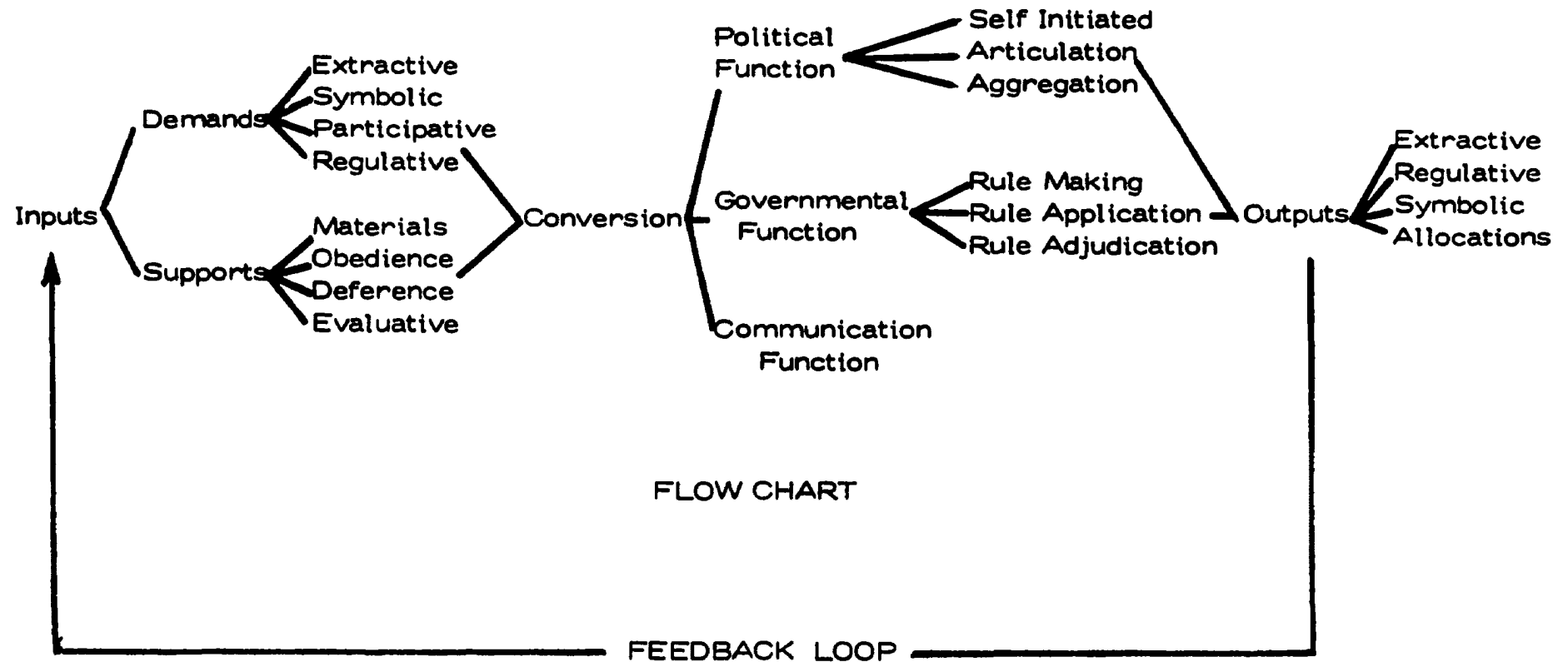
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<sup>44</sup>Kenneth E. Boulding, "General Systems Theory - The Skeleton of Science," Management Science, (University of Michigan, April, 1956), Vols. 2, 3.

<sup>45</sup>Johnson, Kast and Rosenzweig, p. 90.

# DECISION MAKING PROCESS

## BOARD OF EDUCATION



FLOW CHART

FIGURE 2

systems approach, was made by Waller in 1932.<sup>46</sup> He endeavored to identify the functions of the different parts of the school system and their relationships to and effects upon the entire system. His introduction of the idea of the school as a social organism was based on the assumption that individuals form relationships which interact collectively with each other and their environment. Also, the functions that individuals perform contribute to the duration of these relationships. It was interesting to note that although this approach is increasingly being used in the study of business management, very few attempts have been made to adapt it to the functions of the school organization. The recent endeavor by Scribner<sup>47</sup> is an exception to this observation.

Although Scribner has gone further in clarifying Almond's and Easton's approach to studying political systems, it is still very new and unproven as a research method for studying school board actions. However, this conceptual framework does appear to offer a way of examining local school boards and the kinds of relationships and activities associated with this governing body.

#### Problems in Utilizing Systems Approach

It is not within the scope of this study to make an exhaustive study of the difficulties in the application of

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<sup>46</sup>Willard Waller, The Sociology of Teaching, (New York: John Wiley and Sons, 1932).

<sup>47</sup>Scribner, "A Functional-Systems Analysis of School Board Performance."



the functional systems approach to the study of school board action. However, there have been some reviews concerning this subject by writers from the various areas of the social sciences. A recent one, published by The American Academy of Political and Social Science, illustrates the strengths and weaknesses of this approach as viewed by anthropologists, sociologists, economists and political scientists. A review of this monograph shows an increasing amount of structural-functional literature over the past few years.<sup>48</sup>

A majority of the articles dealing with the structural-functional approach were only variations of the same approach, or reviews and critiques of the development of structural-functionalism. Failures in attempts to use this approach in practical situations have been due in part to (1) a lack of verification of theory; (2) the failure to operationalize concepts; and (3) the difficulties in applying the organismic system's model to reality. Because each condition is inter-related with the other two, it is difficult to discuss them separately. An attempt to discuss either one is an admission of the existence of the others.

The first criticism of functional-systems theory is that much of this theory lacks verification. Davis asserts

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<sup>48</sup> Don Martindale (ed.), Functionalism in the Social Sciences: The Strengths and Limits of Functionalism in Anthropology, Economics, Political Science, and Sociology (Philadelphia: The American Academy of Political and Social Sciences, 1965).

that the most obvious reason for this condition is "that much theory is too ambiguous to be researchable."<sup>49</sup> This criticism has been directed at those who might be considered "less ambiguous," for ambiguity in logic, classification, definition and similar activities cannot be measured in degrees. The structural-functional approach, therefore, generally can be criticized for what Buckley asserted was establishing relationships that seemed to be made "intuitively by the structure of the observers' language, or are assumed to be in nature."<sup>50</sup> Another important ground for this criticism was related to the complexity and comprehensiveness of the theory, as suggested by Buckley: . . . the more general a theory, the less is the chance of proving or disproving it in its entirety . . . Fantastic schemes of reasoning have lasted for decades and finally died of disinterest rather than disproof.<sup>51</sup> By the foregoing it seems evident that statements based on several underlying postulates of a theory may be the result of exhaustive reasoning, but lack the important ingredient of simplicity. Also, the theory might suggest so many relationships that it could not be verified effectively.

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<sup>49</sup>Kingsley Davis, "The Myth of Functional Analysis is a Special Method in Sociology and Anthropology," American Sociological Review: Vol. 24 (December, 1959), p. 757.

<sup>50</sup>Walter Buckley, "Structural-Functional Analysis in Modern Sociology," Howard Becker and Alvin Boxkoff (eds.), Modern Sociological Theory (New York: Dryden, 1957), pp. 236-239.

<sup>51</sup>Buckley, p. 237.

The second criticism refers to the failure to provide examples based on experience for the concepts used in statements made from the theory. This criticism is directed again at the ambiguity that is typical in structural-functional theory and the few hypotheses that have been used to test it. Regardless of the inclusiveness of a theory, if the terminology is not operational for the purposes of specified research procedures, then its value is limited as far as it's being of any practical use. Fogleman and Flanagan asserted that (1) until objective criteria are produced for determining when a system is "adequately maintained;" (2) until the interdependence of various 'structures' can be elaborated upon; (3) until the functional requisites are spelled out; and (4) until precise definitions of the fundamental properties are set forth, research will be handicapped because of lack of measurable variables expressed in statements of research hypotheses.<sup>52</sup>

The third criticism refers to the difficulty of applying an idea that was initially developed for studying biological and mechanical relationships to social phenomena. This is an attempt at an organismic analogy. At the beginning of Gouldner's article, The Symposium of Sociological Theory, he states that "Ultimately, therefore, an understanding

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<sup>52</sup>William Flanagan and Edwin Fogleman, "Functionalism in Political Science," Functionalism in the Social Sciences (Philadelphia: The American Academy of Political and Social Science, 1965), p. 120-125.

of functionalism in sociology requires an understanding of the resources of the concept of 'system'."<sup>53</sup> He mentioned several difficulties in reaching such an understanding. For example, the organismic model, in some instances, has led the researcher to search for "characteristics peculiar to the organism, but not inherent in the generalized notion of 'system'."<sup>54</sup> There is an almost endless variation in organisms. Ambiguity is certain to result when a system is considered to be identical to a particular type of organism. An alternative approach is to select a kind of organism to serve as the model, and "to make explicit the most generalized dimensions which are to be applied to social behavior."<sup>55</sup> Also, Gouldner mentions the difficulties, listed earlier, of conceptualizing interdependence and equilibrium and of determining which parts of the system were interdependent.

The foregoing discussion suggests that a wide variation of properties has been given for "system" by writers in the social and physical sciences. The major problem, however, does not seem to be one of basic differences, but a matter of variation in definitions. The structural-functionalist has often borrowed from his predecessors and either enlarged or reduced the framework,

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<sup>53</sup>Alvin Gouldner, "Reciprocity and Autonomy in Functional Theory," Symposium on Sociological Theory (Evanston: Row, Peterson, 1959), p. 239.

<sup>54</sup>Gouldner, p. 241.

<sup>55</sup>Gouldner, p. 242.

usually offering slightly different definitions. The systems approach which is used in this study is discussed in chapters three and four.

## CHAPTER III

### SYSTEMS CHARACTERISTICS AND INSTRUMENTATION

One of the most helpful methods to use in dealing with any new idea or concept is to discuss its characteristics. This is applicable to this endeavor to examine school board actions in a systems theory framework. There are some typical characteristics which are generally associated with systems theory concepts. However, the area of definitions has not been developed in a clear and concise manner but is filled with partial concepts and indiscriminate definitions from a number of different academic disciplines. This cross disciplinary interest has resulted in the use of overlapping concepts and has produced different definitions of terms in numerous contexts. This different terminology and seemingly unorganized definition of terms is certainly confusing and makes for difficulty in studying the ideas associated with systems theory. This has been one of the serious limitations of applying systems theory concepts to empirical situations. Some of these difficulties will possibly be eliminated with additional experience in the application of the concepts.

## TYPES OF SYSTEMS

### Open and Closed Systems

A system is sometimes defined as a complex of elements in mutual interaction.<sup>1</sup> Systems may be open or closed. An open system is related to and exchanges matter with its environment. A closed system is not related to nor does it exchange matter with its environment. A closed system is characterized by entropy, while an open system tends toward a steady state. This characteristic will result in a constant ratio among the components of the system if a continuous input is provided.

This tendency toward a steady state of an open system is often referred to as self-regulation. A system is a self-regulating system if, when a stress is induced and then removed, the system tends to go back to its original state. If the stress is persistent, the system will strive to make adjustments to compensate for the stress.

### Subsystems and Supra-systems

All systems have subsystems except the very smallest ones, and all but the largest systems have supra-systems, which are their environments. "Systems theory deals only

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<sup>1</sup>Dan E. Griffiths, "The Nature and Meaning of Theory in Behavioral Science and Educational Administration," Part II, The Sixty Third Yearbook of the N.S.S.E. (The University of Chicago Press, 1964), p. 116.

with open systems having the properties of systems in general, together with certain characteristics which distinguish them from closed systems."<sup>2</sup>

### General Characteristics of Open Systems

One of the initial steps in developing a systems theory model for school board actions was the determination of the adaptability of these actions to concepts in systems theory. Do school boards possess the characteristics that are necessary to be classified as systems? There are four general characteristics that are usually assigned to systems. They are (1) boundaries, (2) interdependence, (3) equilibrium, and (4) comprehensiveness. We will examine these characteristics and then try to determine whether or not boards of education possess these characteristics.

#### Boundaries

Any serious discussion concerning systems must identify the concepts and ideas associated with boundaries. It is necessary to define boundaries and to discuss some of the problems of identifying and maintaining the boundaries.

A boundary is where one system stops and another starts. In some systems it is quite easy to distinguish the boundary while in others it is very difficult, if not almost impossible. According to Miller the boundaries

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<sup>2</sup>Gordon Hearn, Theory Building in Social Work (Toronto, University of Toronto Press, 1958), p. 44.



of systems are not always clear-cut and round like the rind of a watermelon. "Sometimes they have intricate geometrical design, more like the surface of a branching coral, but even more complex than that."<sup>3</sup> It is generally conceded that it is much more difficult to define a system that is associated with human behavior than it is to identify those systems in the physical sciences.

Herbst emphasizes the importance of boundary formation and maintenance by stating that "the effect of action potential is that the behavior system will operate so as to achieve and maintain some action levels and avoid or move away from others."<sup>4</sup> In other words, the system will operate in such a manner as to incorporate one set of activities into the system and maintain this level of activity within a certain range. It will create certain types of interdependence between activities within the system and eject other activities. The system will resist any change in the activity rate and avoid the formation of other types of structural activity. The boundary is actually formed by an introjection-rejection process which creates the functional boundary between the system and its environment. These points may be determined by separating and describing the elements

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<sup>3</sup>J. G. Miller, "Toward a General Theory for Behavioral Sciences," American Psychologist, Vol. 10, 1955, p. 515.

<sup>4</sup>P. G. Herbst, "A Theory of Simple Behavior Systems," Human Relations, Vol. 14, 1961, p. 78.

within the system. The boundary then may be defined in terms of who is or is not a member of the system.

For the purposes of this study, references to school boards will denote only those persons who are duly authorized by statute to serve as board members. The superintendent of schools is not included within this system although his relationship with it may be a very significant one.

### Interdependence

Another generally ascribed characteristic of a system is interdependence. This characteristic may be described by saying that any change in one component of the system will cause changes to occur in other parts of the system. All the other components are affected by this change, as well as the system as a whole. This type of phenomena takes place rather regularly. Numerous examples may be used in discussing interdependence. An appropriate one might be the adjustments which often take place in board of education relationships when a new member is added to the board.

### Equilibrium

The third general characteristic of systems which is often discussed in connection with interdependence is equilibrium. All living systems tend to maintain steady states of many variables. This is done by negative feedback mechanisms which distribute information to subsystems to keep them in orderly balance. Not only are the subsystems kept in

balance with each other by the feedback, but the system itself is usually kept in balance with its environment. The environment places inputs into the system and receives outputs from it. A steady state is characterized by a constant ratio being maintained among the components of the system. A burning candle is often used as an example of a steady state. Upon being lighted, the flame is small, but it rapidly grows to its normal size and stays this size as long as the candle and its original environment exist.

It is reasonable to assume that when demands bring about a strain upon the activities of the board of education that the members will react in such a way as to process the input into outputs, thereby relieving the strain. This would denote the characteristic of equilibrium. There would probably never be a time of complete absence of stress, but there would be a tendency for the majority of members to pull together in an attempt to relieve the stress. Therefore, it would be acceptable to state that boards of education exhibit the characteristic of equilibrium.

#### Comprehensiveness

The last general property of systems is comprehensiveness. This characteristic includes all that affects or threatens the use of legitimate force. These are all the interactions - inputs as well as outputs. This characteristic can be applied to the development of a model for examining the actions of a board of education by including the formal

structures which include the legislature, the courts and the governor in their dealing with items of educational significance. In this group may be included, also, the chief state school officer, the state board of education when it is present, and the state educational organizations, as well as the political parties, the interest groups such as taxpayers groups, retail merchants associations, PTA, and the professional associations. The anomic phenomena such as Chicago's sit-ins, the New York teacher strikes and the different student movements should be included here. This property is inclusive of all that affects or threatens the use of legitimate force or power. Almond defines comprehensiveness as follows:

We mean to include not just the structures based on law, like the parliaments, organized units, like parties, interest groups, and media of communication, but all of the structures in their political aspects, including undifferentiated structures like kinship and lineage, status and caste groups, as well as anomic phenomena like riots, street demonstrations, and the like.<sup>5</sup>

#### Other Descriptive Characteristics of Systems

There are other characteristics of systems that have not been mentioned in the previous discussions. These have not been applied specifically to the model for studying school board actions. However, they have possible implications in school board research and could prove to be fruitful

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<sup>5</sup>Gabriel A. Almond, The Politics of the Developing Areas (Princeton: Princeton University Press, 1960), p. 8.

for further study. The following discussion certainly does not exhaust the list of systems theory concepts, but an attempt has been made to include the more important ones before concluding this discussion.

### Functional Requisites

Every group of cooperating components (systems) have certain characteristics, perform certain tasks, and function within certain limits in order to be that certain system. This particular performing, behaving, etc. is defined as functional requisites for the system. These characteristics should not be confused with prerequisites. Prerequisites are conditions that must exist before certain things may begin to happen. Requisites are certain conditions that must be present to maintain the unit in its present form. Also, the term requisite implies a pattern of action that is necessary for the continued existence of a group of components. We might combine the above identified characteristics of functional requisites into one definition by saying that functional requisites are those characteristics, conditions and actions that must be present for a certain unit to continue to exist.

A practical example of functional requisites might be that of maintaining a house at a certain temperature during the winter time. There are a number of things that must be present to maintain the house at a constant temperature. The heating system must be supplied with fuel, air

for combustion, an igniting mechanism, a control devise, and some arrangement for distributing the heat in the house. As long as these necessary components are present, and they function in the required manner, the system will operate satisfactorily and the desired result of heating the house will be accomplished. However, if one of the vital components is taken from the system, it can no longer function as it did originally. Under these conditions, the system would not be functioning as it did initially and thus would not be the same system.

#### Capabilities

One of the characteristics of a system that we are interested in, from a practical standpoint, is its capability. This means the ability of the system to deliver the desired result. In a political system, this might be peace, prosperity, or the promotion of the general welfare, or food or fiber from certain commercial systems. The system, whatever the type may be, commercial, scientific, or political, must produce the desired product or it is not likely to persist very long. The capability of a system to take resources from its environment, process them and return them to the environment would be thought of as a functional requisite. This ability to produce is necessary for the system to maintain its existence. Many political systems have fallen because they did not have the capability to handle the numerous demands that were placed upon them.

### Recruitment, Adaptation, and Maintenance

The characteristics of recruitment, adaptation and maintenance refer to the ability of the system to make adjustments when an outside stress is placed on the system. In order for a system to maintain itself under stress it must possess the ability to recruit and adapt new resources. These processes can be exemplified with an example from political science. In order to maintain itself in wartime, a political system must acquire new and additional resources. These needs are met by drafting men, allocating material for war machines, and other similar actions. If these activities are carried out to the extent that the needs are met and the stress is successfully overcome, the system is maintained. These functions are vital in the successful operation of the system.

### Latent and Manifest Functions

Latent functions are those functions which take place without being planned for or being recognizable while happening. These functions are not intended and their effects are not necessarily ascertainable. Manifest functions are those functions which are planned for and which are intended. Merton defines manifest functions in the following manner: "Manifest functions refer to objective consequences contributing to the adjustment or adaptation of the system which are intended and recognizable by participants of the

system."<sup>6</sup> Latent functions refers to unintended and unrecognized consequences. An appropriate example of latent and manifest functions might be made by using the analogy of the circuits in a television receiver. The manifest functions are those which are planned for and which are necessary to produce the desired image on the screen. These would include correct voltages, amperage and resistance deployed in the proper places and in the proper amounts. A latent function would be present when the voltage of a certain section of the receiver changed due to a part failure or breakdown. This would cause more voltage or current in other parts of the receiver which had not been intended nor planned for.

### Feedback

The concept of feedback is associated with the idea that part of the outputs of any system must be fed back into the system as corrective factors if the system is to make the necessary adjustments to changing conditions and thereby be able to survive. Feedback has been described as "the property of being able to adjust future conduct by past performances."<sup>7</sup> This concept is comparable to the age old

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<sup>6</sup>Robert Merton, Social Theory and Social Structure (Glencoe: The Free Press, 1957), p. 19.

<sup>7</sup>Norbert Weiner, The Human Use of Human Beings (New York: Doubleday Anchor, 1954, Rev. Ed.) p. 33.



adage that "experience is the best teacher." These feedback functions are very important in that they not only help to influence events in the broader society of which the system is a part, but they also influence each succeeding round of inputs that finds its way into the system the next time and the next. In this way the outputs return to haunt the system, so to speak. If it were not for the feedback of information to the system, the authorities would work completely in the dark insofar as their knowing what desires and demands needed to be met.

For one thing, lacking relevant information about the state of the system or its environment, the authorities would not know whether the system was being menaced by a deterioration in the level of support for one or another of the political objects or whether there was trouble ahead in this respect. Only by pure chance could any actions by the authorities be relevant to stress if it should unknowingly be occurring.<sup>8</sup>

Easton goes on to make the point that the presence of such information does not guarantee that the authorities will use it as a basis for wise decisions. Yet if this type of information is not available, no system would be able to persist for very long in a stable world, much less in one which is changing at a rapid rate, except by mere chance. Easton discusses the feedback concept, its importance and usefulness rather extensively in chapters 23, 24, 25, and 26 of his book, A Systems Analysis of Political Life. He prefers to

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<sup>8</sup>David Easton, A Systems Analysis of Political Life, p. 365.

use the title of "feedback loop" when referring to this concept. Easton lists four phases in one complete cycle around a feedback loop. They are (1) the outputs and outcomes as stimuli, (2) the feedback response, (3) the information feedback, and (4) the output reaction to the feedback response.<sup>9</sup> All living systems tend to maintain steady states of many variables by negative feedback mechanisms which distribute information to subsystems to keep them in orderly balance.

This idea of feedback of information from past decisions to affect present and future decisions certainly seems to be pertinent to the decision making processes of boards of education. Members of these boards would certainly be less than realistic if they proposed to make decisions without reference to the amount of support present in the environment or without consideration of how the environment had been affected by and has accepted past decisions of the board.

#### Equifinality

An open system can display the quality of equifinality. Equifinality is defined as having final equal results. "This condition can be obtained from different initial conditions."<sup>10</sup> Quite often living organisms will arrive at about the same

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<sup>9</sup>Easton, p. 381.

<sup>10</sup>Hearn, p. 46.

terminal state even though they have been rather far different in their initial stages. Hearn points out that equifinality in human beings, which are open systems, is illustrated by the case of two babies, one born prematurely, the other full-term. While at birth they may look very different and may be in different stages of development, within a few months the differences will have disappeared. Even though the initial states may differ, human beings generally achieve the same stages of development.

According to Miller,

. . . no matter whether he is nurtured at court to become Pharaoh or cast away in the bulrushes, a man will search until he finds an environment with inputs capable of diminishing the particular drives within him - strains established by his genetic inputs as modified by later inputs of energy and information, by learning or acculturation.<sup>11</sup>

#### Ultrastability

In order to survive in a changing environment, an open system must change to meet these changing conditions. In such a case the only way for the system to survive is change. "The capacity to persist through a change of structure and behavior has been called ultrastability."<sup>12</sup> If a complex social structure is to survive critical changes in its surroundings, it can do so only by changing its structure and function.

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<sup>11</sup>J. G. Miller, p. 518.

<sup>12</sup>M. L. Cadwallader, "The Cybernetic Analysis of Change in Complex Social Organizations," The American Journal of Sociology (LXI, September, 1959), p. 155.

In discussing this aspect of open systems, Griffiths asserts that "open systems maintain their steady states, in part, through the dynamic interplay of subsystems operating as function processes . . . that the various parts of the system function without persistent conflicts that can be neither resolved nor regulated."<sup>13</sup>

### Entropy

Entropy is the tendency of a body or system to strive toward lifelessness, decay or complete equilibrium - to completely "run down" and therefore cease to be a living thing. The universe as well as other systems possess the characteristic of entropy in that there is a gradual slowing down of the system unless a counter force is applied to overcome this tendency.

### Dysfunctional Inputs

These are the type of inputs which cause stress upon the system. If a system receives too many of these inputs, it may be completely destroyed or at best badly hampered in its operation. An example of this type of inputs into the system of a board of education would be demands for more and better reading programs and other types of demands.

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<sup>13</sup>Dan E. Griffiths, "The Nature and Meaning of Theory in Behavioral Science and Educational Administration," Part II, The Sixty Third Yearbook of the N.S.S.E. (The University of Chicago Press, 1964), p. 116.

### A Systems Model for School Board Research

The following discussion is primarily concerned with the general concepts of systems theory which have been adapted for studying school board decisions in this study. These characteristics come basically from a systems model developed by Easton, Almond, and an adaptation by Scribner. Figure 3 is a diagram of the framework which emerged from these concepts during the progress of this study.

#### Inputs

The inputs of a system provide the "raw material" for the system. The inputs are the materials which enter, or are placed, into the system for a definite purpose. Sometime they may become a part of the system because of requests for the allocation of certain goods or services. Other times these components may be some type of support for the system in carrying out the procedures that are necessary in meeting requests for allocation of goods or services.

#### Demands

Inputs have been subdivided by Easton into demands and supports.<sup>14</sup> Demands are defined as definite assertions by the members of a group that certain things be done or that certain things not be done. These requests are directed toward the authorities responsible for making these decisions.

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<sup>14</sup>Easton, A Systems Analysis of Political Life, p. 27.

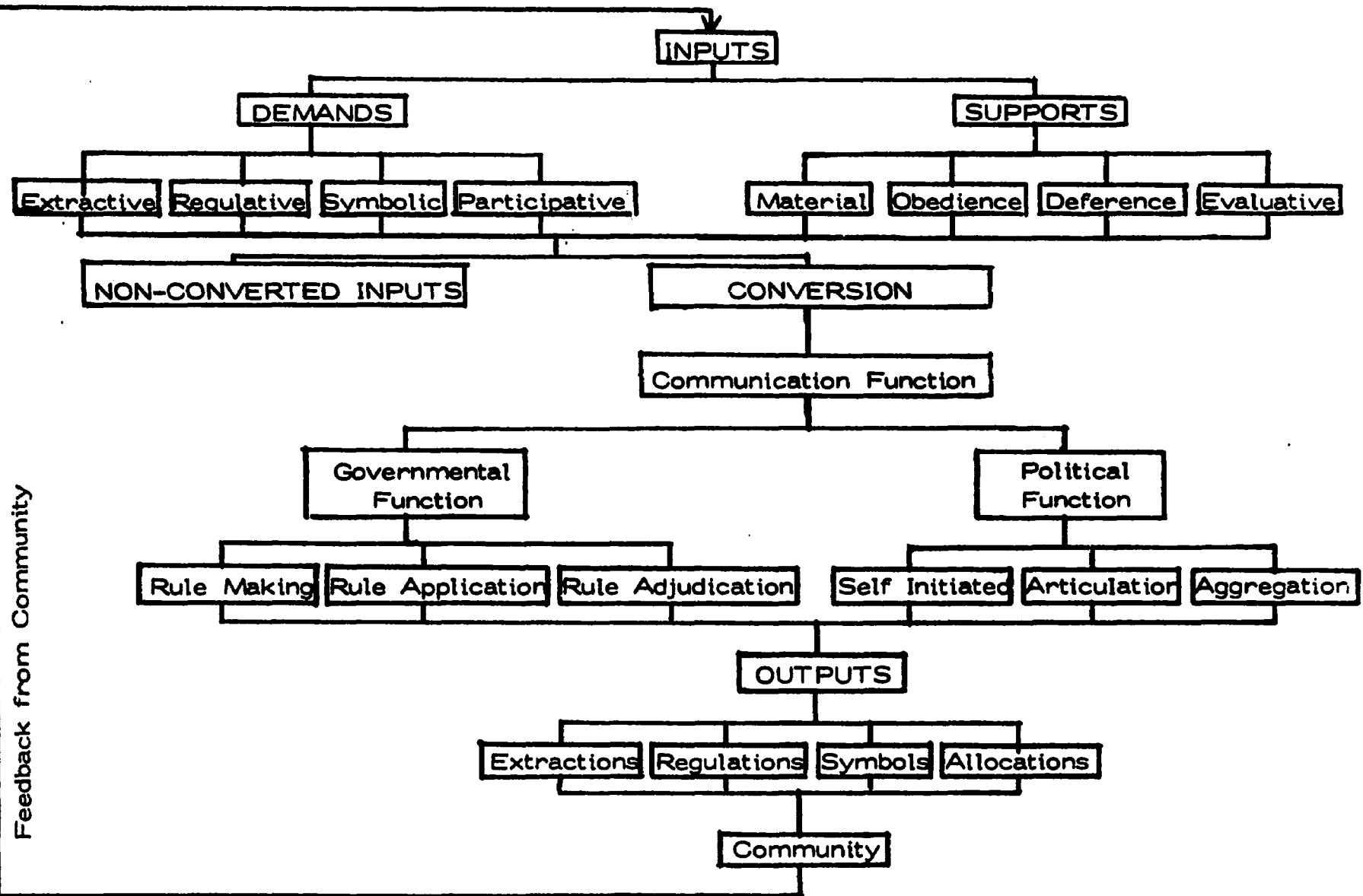


Figure 3

A Systems Framework for School Board Analysis

These demands may take the form of requests for certain actions by the authorities or they may be requests that goods or services be provided by the authorities.

Demand inputs have been further divided into the following four subdivisions: (1) extractive demands, (2) symbolic demands, (3) regulative demands, and (4) participative demands.

### **Extractive Demands**

Extractive demands are defined as those demands that pertain to the allocation of materials, services, and curriculum. Since this is a discussion of boards of education, these would be requests from the community for allocation of materials, goods and services under the control of the board.

Where available, a summary of the kinds of material that were contained in the data sources is given. When actual examples are not present in the source material, examples will be given which might be found in other sources. The following are examples of extractive demands:

#### **I. Instructional Materials**

- A. Provide Overhead Projectors**
- B. Use supplementary reading series**
- C. New typewriter for commercial department**
- D. Replace calculating machine in business room**
- E. Repair drafting equipment**

#### **II. Personnel**

- A. Teacher Service**
  - 1. Pay enrollment fee for teachers to attend summer workshop in reading**

2. Do not request teachers to attend all professional workshops
  3. Employ more teachers to decrease size of class sections
  4. Provide new furniture for teachers lounge
  5. Request to allow teachers to be exempt from serving on gate duty
- B. Pupil Personnel Services
1. Improve central library
  2. Provide more student activities
  3. Use more pupil conferences with teachers
  4. Provide special reading period for students with reading problems
- C. Non-certified Personnel Services
1. Provide teacher aide for performing routine work
  2. Need in-service training for custodians in order to stay informed concerning new methods
  3. Encourage students to help keep school clean by picking up paper, straightening chairs, etc.
  4. Request by non-certified personnel to be included in school policy for sick and bereavement leave

### III. Curriculum

- A. Add a foreign language
- B. Resist pressure by groups with personal interest to introduce courses into the curriculum
- C. Abolish requirement that students take two years of science
- D. Require two years of either vocal or instrumental music
- E. Add organized course in sex education
- F. Require girls to take a minimum of one year of Home Economics
- G. Discontinue requirement to take Latin in high school

### Symbolic

Symbolic demands are demands which establish the planning for actions regarding meetings, tributes, publications, and special programs. An example of this type demand



would be a request from the environment, or from one of the members, that an appreciation dinner for the "outstanding teacher of the year" be given. Also, a request for a special program in commemoration of the founding father of a University would be an example of a symbolic demand. Another example of this type demand would be a statement that a meeting should be held for the purpose of making nominations for certain certificates and awards.

The following are examples of symbolic demands:

**I. Meetings**

- A. Attend the National Convention of the American Association of School Administrators
- B. Attend the district meeting of the Oklahoma State School Boards Association
- C. Request to schedule meeting for discussion of proposed changes in the bus routes
- D. Suggestion for scheduling appreciation dinner for a retiring school board member

**II. Publications**

- A. Request from the representatives of the local taxpayers group for publication of planned school plant expansions
- B. Request for copies of the school budget
- C. Request from the school principals for publication of a list of substitute teachers
- D. Request from the school patrons for publication of the menu for the school cafeteria
- E. Statement by a patron that an estimate of needs for the school during the coming year should be published in all the local papers

**III. Tributes**

- A. Schedule recognition dinner for a board member who has extensive tenure as President of the Board
- B. Request to name a high school for John Glenn
- C. Participate in the Awards Assembly for high-school students
- D. Award a plaque to the Teacher of the Year

#### IV. Special Programs

- A. Requests for physical education group to give demonstrations of activities being engaged in and explain the goals of each
- B. Request for scheduling a program from a nearby Air Base to demonstrate the latest developments in air power
- C. Request to complete a plan for the performance of the Oklahoma City Symphony for a March of Dimes Benefit
- D. Request for approval of plans to present the Oklahoma City Symphony for school-wide concert

#### Regulative

The demands which have to do with rules and regulations for the members of the school board and the subordinate school system are known as regulative demands. An example of this type of demand would be a request for a regulation concerning the attendance of teachers at professional meetings. A request for the regulation of the driving of vehicles by the student body is another example of this type of demand. The rules and regulations in the teachers' handbook and those contained in the student's handbook would be placed in this category of input.

Following is a list of examples of regulative demands:

- 1. Adopt a policy for hiring substitute teachers
- 2. Develop a policy for admittance to Special Education classes
- 3. Suggest that school board develop a set of written personnel policies
- 4. Regulate the parking of cars in the school parking lot
- 5. Adopt a policy of allowing personal leave for school employees

## Participative

A request for permission for individuals or groups to participate in the actual formation of rules and regulations would be classified as a participative demand input. This type of demand is exemplified by the recent demands by teacher groups that they be given more active participation in the formulation of rules and regulations under which they will be expected to operate.

A sample of this type of demand would be exemplified by:

1. Requests to have teacher representatives at board meetings and be allowed to vote on personnel policies
2. Requests by students that the student council be given more authority to determine standards of dress
3. Requests by teachers that they be allowed to elect a teacher committee to study the present personnel policies and recommend changes to the board
4. Requests by principals that they be consulted concerning proposed administrative changes before they are actually adopted

## Supports

Support inputs are those items which are placed into the system which help the authorities fulfill the requests that are directed toward them. Here again, these inputs have been subdivided. These types of inputs are listed as (1) material, (2) obedience, and (3) deference.

## Material

Material supports are those supporting items in the form of finances from taxes, endowments or gifts, and

personnel which are qualified to fill the various types of positions in the school. These supports are most usually in the form of revenue for financing the maintenance and operational cost of the school and the qualified personnel that are necessary for carrying on the educational operations.

Examples of material support would be:

#### I. Finance

- A. Request County Clerk to appropriate Title III funds
- B. Request County Clerk to allocate P.L. 874 funds
- C. Request County Clerk to appropriate Title I and II funds

#### II. Gifts

- A. Water cooler from Wilson Elementary School PTA
- B. Statement from the president of the senior class that the class was leaving a small trophy case for the use of the school
- C. Letter from the City Board offering a gift of used equipment for Farm Shop repair courses
- D. Gift from the student body of a plaque in memory of a deceased teacher

#### III. Personnel

- A. Appointment of a full time counselor
- B. Appointment of an assistant principal
- C. Employment of a school psychologist
- D. Employment of an additional teacher aide
- E. Appointment of a director of student activities
- F. Employment of a curriculum center supervisor

#### Obedience

Obedience is the willingness of the members of the school system to observe the rules and regulations of the local board of education and the state school laws. This

particular support is rather difficult to measure in concrete terms, but is exemplified by a lack of strikes, unrest, habitual absenteeism and other indications of low morale. A lack of certain activities on the part of the school employees might be a better indication of this support than any predetermined or overt action on the part of school employees and other members of the school group. This characteristic is very hard to measure. In fact, no effective way has yet been devised for measuring this type of input.

#### Deference

Deference is indicated by actions which seem to show that members of the school group agree with what is being done. This would be shown by members of the community voting for a bond levy or attending special meetings and programs. The support of the community for symbolic activities would be another indication of the support input of deference. Deference seems to indicate that the members of the community generally have confidence in and agree with what the board members are trying to accomplish.

In studying the minutes of a board meeting, Scribner found a number of support items that did not seem to fit under the available categories of support. He proposed a category for these supports which he called "evaluative support." These were typically statements of admiration, praise, appreciation and similar expressions from members

of the environment. These were expressions of evaluation of past actions or allocations by the members of the board.

### Conversion

The conversion functions are simply the activities that are performed by the members of the school board that result in converting demands into policies, rules, and decisions. There are usually three types of functions that are listed as conversion functions. They are (1) political functions, (2) governmental functions, and (3) communication functions.

### Political Functions

The political functions are those functions or actions which result in a request or demand being placed in the system. The demands or supports become inputs when they are placed in the system during the political functions. Almond listed two types of political function: (1) articulation, and (2) aggregation.<sup>15</sup> Also, Scribner found some material that seemed not to fit in either of these two categories and he proposed a new category which he called the function of self initiation.<sup>16</sup>

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<sup>15</sup>Almond, A Developmental Approach to Political Systems, p. 195.

<sup>16</sup>Scribner, p. 76.

### Articulation

The functions of articulation may be defined as the placing of information into the system by one of the members of the system. In the case of school board action, this would be done by a board member, an administrator or some other person present at the meeting. An example of articulation would be initiated when a board member would present a request from a patron that a school bus route be changed to facilitate the efficient hauling of more students.

### Aggregation

The functions of aggregation refer to the consolidation of two or more demands into a single policy proposal. In the case of studying school board actions, this type function would take place when the board is asked to set a policy for two different situations and they developed one policy which would take care of both situations. The following situation is an example of aggregation: The board received a request to limit the driving of cars during the noon hour because of the hazard caused by the number of students who are walking at the same time the cars are being driven. The second request was for an extension of the noon hour so that the students might have adequate time to obtain a satisfactory meal. To solve this problem the board adopted a policy which satisfied both requests. They developed a policy of staggering the lunch hour so that only part of the students were dismissed for lunch at the same time.

### Self Initiation

The self initiated function takes place when a board member introduces a request or support which is his own and has not been received from an outside member of the community. This function would generally be preceded by such statement as, "I think we ought to," or "I move that we," or other similar statements.

### Governmental Functions

These functions result in the making of decisions and rules and the application of rules and laws which are already in force. The governmental functions have been divided into three different functions. They are: (1) rule making, (2) rule application, and (3) rule adjudication.

#### Rule Making

Rule making is simply what the name implies; the making of rules by a body which has the legal authority to do so. These rule making statements of decision or policy are based upon the adoption or rejection of one or more policy proposals. This is usually called the establishment of policy when this function is performed by a board of education.

Examples of this type of governmental function being performed by a board of education are:

- A. A statement on the permitted use of school facilities by patrons.
- B. The formation and adoption of a policy for allowing free or reduced cost lunches
- C. A policy statement on seniors taking senior trips



### Rule Application

The function of rule application is used when a group applies established rules or laws to determine the course of action in a situation. These are statements which apply local rules or state laws to one or more policy proposals. The school board will generally use the written school policies or the state school law in performing this type function. In a majority of these cases the board is operating under provisions of delegated authority from the state government. Examples of this type of function would be, after a motion is made, seconded, and voted upon, to:

- A. Make arrangements for regular school elections
- B. Administer the oath to a new board of education member
- C. Employ additional teachers as permitted by state formula
- D. Revise the bus routes to accomodate new students

### Rule Adjudication

The function of rule adjudication refers to a statement of one or more decisions or policies following the presentation of opposing or contrasting requests for policy adoption. When a school board is asked to integrate a school up to a certain percentage level, and it is also requested not to integrate and the board makes a decision and policy statement based on these requests, it is performing the function of rule adjudication. Another example of the school board engaging in the rule adjudication function would be a decision concerning the request to allow bicycling to school at the same time that they had been asked to not allow students

to ride bicycles to school. An example that was found in the material used for this study was as follows:

- A. The school board is asked to not permit students to drive cars at noon.
- B. Permission is requested from the board to continue to allow students to drive at noon and to liberalize the present rule so that they may drive other places than "just to and from their homes."

Adjudication: The school board members moved, seconded and voted to accept the following policy:

- A. The board is not against students driving at noon. However, in view of the congestion around the school building at noon, students should not be allowed to drive indiscriminately.
- B. Students will be allowed to drive home at noon for lunch and then drive directly back to school.

### Communication

In his framework for political analysis, Almond identifies the communication function as

. . . all of the functions performed in the political system - political socialization and recruitment, interest articulation, interest aggregation, rule-making, rule application, and rule adjudication.

However, Almond affirms that

Although it might appear that there is no political communication function as such, . . . that a view such as this comes into conflict with the fact that in the modern political system differentiated media of communication have arisen which have developed a vocational ethics of 'neutral' or objective communication.<sup>17</sup>

Almond also tries to limit the definition of communication further than this, but his definition of communication is

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<sup>17</sup> Almond and Coleman, The Politics of the Developing Areas, p. 45.

still too comprehensive for the purpose of studying school board decisions. The concept of communication must project a rather limited meaning in this framework for the purpose of examining school board actions. Communication, in this context, will refer only to the passing of information pertaining to an input, a demand or support, during a discussion by the school board members meeting in a legally constituted meeting. The communication function will serve as a basis for action by the board, but for the purpose of this endeavor, it must either immediately precede or follow the actual setting of a demand or support input. "This function, therefore, is requisite to the processing of demands and supports in a pattern of flow to the point at which a rule is made, or at which they dissipate or vanish."<sup>18</sup> A demonstration of communication used in this connotation is shown in the following train of events which are taken from the minutes of the meeting of a board of education.

<u>Category</u>	<u>Event</u>
Demand	Request for the board to make a rule on the use of school buildings
Communication	Superintendent gives examples of what other school districts do concerning this type request
Communication	The necessity of having a standard policy so that everyone "May know what to expect" when asking to use school buildings
Output	Motion made and seconded and a vote taken to allow public use of buildings as long as this use is consistent with the stated purposes of the school district in general

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<sup>18</sup> Scribner, p. 63.

The first event is classified under the extractive demand input category, the next two events are classified under the category of communication, and the last event is classified under the extractive output category resulting from the governmental function of rule making.

### Outputs

Outputs are the results of the input and conversion processes. This is the action that the system returns to its environment. Outputs may be responses to demands or they may be the consequences of some action taken upon the support inputs. Some inputs may not survive from the point of entry to the point at which they have been converted into an output. In studying school board action, outputs are the consequences of the board's performance of the various governmental functions, either rule application, rule making, or rule adjudication.

Almond asserts that the political system has four different classes of outputs. They are (1) extractions, (2) regulations, (3) symbols, and (4) allocations, sometimes called distributions. These outputs correspond to the different types of inputs and are listed on page 68.

### Extractive

Extractive outputs are those outputs from the system which are the results of a demand or request on the system for decisions concerning the allocation of goods or

services. These could be requests for an increase in the budget, for classroom furniture, or for additional personnel.

### Regulative

Regulative outputs are those outputs from the system which result from requests for members of the system to be allowed to enter into the policy making function of the authorities - in this case the board of education. This might be requests for permission to elect a committee to help the board formulate personnel policy and in the making of other similar decisions which affect the employees of the system. These requests could be concerned with rules and regulations for the students as well as the paid employees. A request for the board to allow students to visit the board meetings and bring suggestions for regulating student behavior would be classified in this category.

### Symbolic

Symbolic outputs are those decisions by the authorities, the board of education, to schedule meetings or perform actions of the symbolic nature. This would include the scheduling of dinners to honor members of the system or a decision to publish a resolution in appreciation for the service of a long time member of the board. A decision to schedule a special program to honor a group of outstanding students would be another example of a symbolic output of the school board.

### Allocative

Allocative outputs refer to the outputs of the system to the environment. In the case of a school board, the allocations would be in the form of educated persons who would be better able to take their place in society and be a productive member of it. The decisions of the board of education could lead to higher standards of education which would in turn lead to a better education and higher incomes. These could lead to more skilled technicians and economic growth which in turn would lead to a greater degree of national security and to other benefits for society.

### INSTRUMENTATION DEVELOPMENT

It was felt that in order for a systems model to be helpful in analyzing the actions of boards of education that a number of problems had to be solved. One of the more apparent problems was the development of an instrument that would facilitate the recording of a large amount of information in a small space. (See Figure 7, page 96 ) The correct procedure for recording information on the instrument should be clear enough for use by the average person desiring to utilize it. Another need that had to be met in order to use this systems procedure was the development of a method for coding the decision of the board. (See Figure 6, page 92) Also, it was necessary to develop a coding system which would identify each type of input, conversion process, and output present in the source material.

The previously mentioned need to develop a coding procedure brought into focus another problem. The definitions for the systems concepts to be used in the analysis needed to be collected, condensed, and organized in such a way as to be available to persons doing the coding. (See Appendix C.) The coders must understand the definitions and be capable of applying the coding procedure in an acceptably consistent manner. A coding procedure was developed from the pertinent definitions and provisions were made for recording them on the research instrument. The coding and recording procedures were tested on source material from a regular meeting of a board of education. Revisions were made in the procedure until it was felt that an acceptable method had been developed.

#### VALIDITY

One of the requirements of a good research project is that it meet the test of validity. Is the information presented by the research procedure really accurate? In order to meet the requirement of validity, the data upon which the research project is based must be comprehensive as well as accurate. Since the primary sources of data for this study were the minutes of school board meetings, it was necessary to determine the accuracy of the minutes in describing what actually took place in the board meetings.

Three sources of information, in addition to the board minutes, were investigated: (1) agenda for the

meetings, (2) newspaper accounts of the meetings, and (3) interviews with people who were present at the meetings. (See Figure 4, 5, and 6 for coding.) The newspaper accounts and agenda of three different boards were compared to school board decisions as recorded in the board minutes. Of five meetings examined of each of these three boards, there were two instances where action had been taken by the board as indicated in the newspaper which were not recorded in the official minutes. There were some other items reported in the newspaper accounts that would be classified as discussion or reporting which were not recorded in the minutes, but there were no actual notations of board actions taken except the two instances mentioned previously. There were five items in the fifteen agenda which had no recorded action taken on them. Three of these items would be classified as informational type inputs with only two of them being requests for decisions or action. Attempts were made to determine the reason for these discrepancies by interviewing administrators who were present at the meetings. Information was gained from the interviews to clear up one discrepancy. The only reason for the other one seemed to be misinformation in the news item in that a board action was reported which in reality did not transpire.



AGENDA  
MEETING OF BOARD OF EDUCATION  
LAWTON, OKLAHOMA

Held on July 5, 1966

1. Call to Order
2. Invocation
3. Roll Call
4. Consider Approval of Minutes of Meetings held  
on June 6th, 22nd, and 24th, 1966. *IED,*
5. Hearing Special Guests *IMS<sub>2</sub>*
6. Report of Treasurer *IMS<sub>9</sub>*
7. Consider Miscellaneous Bids *IED<sub>2</sub> IED<sub>4</sub> IED<sub>5</sub>*
8. Report of Clerk *IED<sub>6</sub> IMS<sub>8</sub>*
9. Consider Allowance of Claims *IED<sub>7</sub>*
10. Report of Superintendent of Schools *IED<sub>2-22</sub>*
11. Miscellaneous Business *ISD<sub>3</sub>*
12. Adjournment

Figure 4

The Coding of Source Information Contained in Board Meeting Agenda

Figure 5

## The Coding of Source Material Contained in Newspaper Articles

Lawton Morning Press, Thursday, July 7, 1966

Bish Recommendations Heard

SCHOOL BOARD OKAYS NEW PERSONNEL, A PICKUP TRUCK,  
SEDAN FOR THE STAFF

By Jack Bailey

The Lawton Board of Education approved a new list of personnel, purchased two new vehicles, and conducted other routine business at a short re-scheduled meeting.

They also heard clerk and treasurer's reports and reports and recommendations from Jugh Bish, at his first meeting as new Superintendent of schools.

The regular Monday night meeting was re-scheduled to Tuesday night, due to the holiday. Lawrence Sheffield, vice-president of the board presided in the absence of president Howard Babbitt, who is on vacation.

Personnel approved for the year 1966-67, their assignments and salaries include Marjorie Reid, Eisenhower Junior High School, Science, \$6,800; Juanita Hallmark, Lawton High School, English, \$6,500; Margaret Bowling, elementary, \$5,300; Deloris Butler, elementary, \$5,500; A. C. Mosby, elementary, \$5,300; Laverne Mosby, elementary, \$5,300; Peggy Myers, elementary, \$4,900;

Mary Ann Pawless, board of education secretary; \$235 per month; Pamela Blackburn, board of education switchboard operator; \$235. per month; Roy L. Zimmerman, custodian at Tomlinson Junior High School, \$3,660.

Other salary changes included Alfred Braddy, promoted from counselor to principal at Central Junior High School \$6,300 to \$6,800; Sid Ahlschlager, promoted to counselor at Central, \$5,850 to \$6,150; Joe Diffie, change in records to include additional Army Service, \$5,000 to \$5,100; Jerry Hickey, salary correction, \$5,500 to \$5,400; Kenneth Leonhardt, correction \$4,500 to \$3,780 and William Cervený, head custodian at Central \$3,780 to \$4,500.

Resignations approved include Terry Powell, assistant principal at Central Junior High School; Valree Wynn, Lawton High School, English teacher; Vada Grooms, Central Junior High School, English; Tommie Barkley, Carolyn Rice, Patricia Risher and Joyce Tarowsky, all elementary teachers.

**IED3**  
Low bidder on a four door sedan, to be used by the school administrative staff, was Howard Smith Ford Agency, Third and B. Their low bid was \$2,566.60 for a custom Ford 500, eight cylinder automobile. **OE3**

**IED4**  
Smith was also low bidder on a pick-up truck to be used by the maintenance department. His bid was \$1,895 for a six cylinder three-quarter ton pickup. **OE4**

Ansley Paper Company was low bidder<sup>IED,</sup> on making tape and paper towels<sup>OS</sup>, at a total bid of \$4,320.18 including a discount for \$88.17.

The board heard and approved the treasurer's report and clerks reports<sup>OAS</sup> and recommendations. A representative for architects<sup>IMS/D ISM,</sup> Cottingham and Cook made progress reports on buildings and plans in progress.

The spokesman said that the John Shoemaker Education Center, presently being constructed north of Lawton High School, is now 95 per cent completed. Bish said he hopes to move the administrative staff into the new building the last of July.

The treasurer Henry Weddle recommended that the board re-invest the \$1.8 million, which the board will receive around July 10, in U.S. Treasury bills, until needed for the construction of the new Eisenhower Junior High School.<sup>IMS,</sup>

The estimate of needs<sup>ST,</sup> for the fiscal year 1966-67, came<sup>IED,</sup> to some \$7,596,500 according to J. S. Kuntz, board clerk.

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Figure 6

## The Coding of Board Minutes as Source Material

Each member of the board having received through the mail copies of minutes of the meeting held on June 6th, 22nd, and 24th, 1966, same were approved as recorded as moved by Dutcher seconded by Joyner.

Hearing Special Guests

Mr. Hugh Bish, Superintendent of Schools, introduced the following administrators for the school year beginning July 1, 1966:

Jimmy Miller, Assistant Principal - Eisenhower High  
 Albert Johnson, Assistant Director of Federal Projects  
 Bill Cofer, Administrative Assistant of Instruction

*O.A.2 C2.1 - Decision obtained by interview with asst. Supt.*

Consideration of BidsFOR ADMINISTRATIVE AUTOMOBILE

<u>C.P. ART<sub>3</sub></u> <u>BIDDER</u>	<u>TRADE NAME</u>	<u>LIST PRICE</u>	<u>DISC.</u>	<u>TOTAL</u>
<i>C3.1</i> Phillips-Aubrey Chevrolet Co. 807 Sheridan Lawton, Oklahoma	1966 Chevrolet Model 15669, 8 cylinder, 195 H.P. 2 weeks delivery	\$3,538.70	\$897.94	\$2,640.76
<i>C3.2</i> Howard Smith Ford 3rd & B Avenue Lawton, Oklahoma	1966 Ford Custom 550, 8 cylinder, 200 H.P. Immediate delivery	\$3,494.74	\$928.14	\$2,566.60

Upon motion of Joyner seconded by Dutcher the proposal as submitted by Howard Smith Ford for One (1) 1966 Ford Custom 500, 4 Door

*OE<sub>3</sub>*

Sedan, in the amount of \$2,566.60 was accepted.

**IED<sub>4</sub>**  
FOR PICKUP TRUCK

**C.P. ART<sub>4</sub>**  
BIDDER

TRADE NAME

LIST PRICE DISC. TOTAL P.

<b>C<sub>4.1</sub></b>	Phillips-Aubrey Chevrolet Co. 807 Sheridan Lawton, Oklahoma	1966 Chev.C2534 3/4 Ton Pickup, 6 cylinder, 155 H.P. 2 weeks delivery	\$2,790.85	\$766.35	\$2,024.50
<b>C<sub>4.2</sub></b>	Howard Smith Ford 3rd & B Avenue Lawton, Oklahoma	1966 Ford F250 3/4 Ton Pickup, 6 cylin- der, 150 H.P.	\$2,471.05	\$576.05	\$1,895.00
<b>C<sub>4.3</sub></b>	Vernon Klein Truck & Equip, Inc. 2216 South 6 Lawton, Oklahoma	1966 International Model 1100A 3/4 Ton Pickup, 6 cylin- der, 153 H.P. App. delivery - 45 days			\$1,997.50

Minute Record of Meeting held on July 5, 1966 (Continued)

Consideration of Bids (Con't.)

**C.G. RAY**

Upon motion of Joyner seconded by Dutcher the proposal submitted by Howard Smith Ford for One (1) 1966 3/4 Ton Pickup Truck in the amount of \$1,895.00 was accepted. **OE<sub>4</sub>**

**IED<sub>5</sub>**  
FOR WAREHOUSE SUPPLIES

**C.G. RAY**

**C.P. ART<sub>5</sub>**

Upon motion of Dutcher seconded by Short, the bid of the Ansley Paper Co., Lawton, Oklahoma was accepted as follows: **OE<sub>5</sub>**

55 cases	Masking Tape (Items 1, 2 & 3)	892.35
<b>C<sub>5.1</sub></b> 100 cases	#238 Garland Single Fold	
	Paper Towels @ \$5.86 per case	<u>3,516.00</u>
	Total	4,408.35
	Less 2% 10 days	<u>88.17</u>
	Net	4,320.18

Report of Clerk

**SI<sub>6</sub>**

J. S. Kuntz, Clerk reported that this is the time that the Board of

**IED,**  
 Education should adopt a final Estimate of Needs for school year  
**C6.1**  
 beginning July 1, 1966. He requested Haskell Evans, the newly  
 appointed Director of Finance, to present the following financial  
 statement:

# GENERAL FUND

1965-66

## INCOME:

Surplus, June 30, 1965	\$	969,806.95	
Collections through June 27, 1966		<u>6,652,189.67</u>	
			\$7,621,996.63
Purchase Orders Issued	\$	5,748,444.37	
Payroll Claims Not Posted		222,035.46	
Purchase Orders Not Posted		569.80	
Payrolls Due - Fiscal Year		<u>502,358.34</u>	
			\$6,473,407.97
Estimated Surplus Including Title I Money			\$1,148,588.66

## ESTIMATE OF NEEDS - GENERAL FUND FISCAL YEAR 1966-67

### ADMINISTRATIVE SERVICES

1-A Salaries	\$	220,000.00
1-B Supplies		20,000.00

### INSTRUCTIONAL SERVICES

2-A Salaries	5,550,000.00
2-B Libraries - Control	50,000.00
2-C Audio Visual Aids	20,000.00
2-D Science	35,000.00
2-E Band Music	2,000.00
2-F Speech	1,000.00
2-G Vocal Music	2,000.00
2-H Title V, P.L. 85-864 - Guidance NDEA	7,500.00

The statement of Needs for General Fund showed same to be a total  
**C6.2** of \$7,596,300.00 which is an increase of \$188,650.00 as compared  
 with Estimate of Needs adopted in March of this year.

**C6.3** It was explained that the increase of needs is due to added admini-  
 strative officers, also for increase in teacher salaries.

**C6.3A6** It was moved by Joyner that the revised Estimate of Needs for fiscal  
**DE6**  
 year 1966-67 for the General Fund in the amount of \$7,596,500.00  
 be adopted. The motion was seconded by Dutcher and upon vote  
 carried.

#### Allowance of Claims

**C7.1**  
 The Clerk reported that the list of claims mailed board members should  
**IED,**  
 have included the following claims which were overlooked:

J. T. Wright - Rental of Space and Equipment	722.22
Lawton Armored Service - Pickup of School Deposits	325.00
Lawton Recreational Council - Board's Contribution to the City Vacation Rec. Program	500.00

**66AA7**  
 It was moved by Dutcher that the following list of claims mailed  
 board members together with the three claims unlisted, be approved  
 for payment. Motion was seconded by Short and upon vote carried:

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SOURCE			INPUTS								COMM.	CONVERSION						OUTPUTS				COMMENTS	
			DEMANDS				SUPPORTS					POLITICAL				GOVERNMENTAL							
A	M	N	Ext.	Sym.	Reg.	Par.	Mat.	Obed.	Def.	Eval.		Art.	Agg.	S.I.	Un.	R.A.	R.M.	R.Adj.	Ext.	Reg.	Sym.	All.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
✓	✓		IED <sub>1</sub>								C1.1	CPART <sub>1</sub>				GGRA <sub>1</sub>			OE <sub>1</sub>				
*	✓	✓					IM <sub>1</sub>				C2.1			SI <sub>2</sub>		GGRA <sub>2</sub>						OA <sub>2</sub>	2. opinion determined by interview
*	✓	✓	IED <sub>3</sub>								C3.1 C3.2	CPART <sub>3</sub>				GGRA <sub>3</sub>			OE <sub>3</sub>				3. input not explicitly stated
*	✓	✓	IED <sub>4</sub>								C4.1 C4.2 C4.3	CPART <sub>4</sub>				GGRA <sub>4</sub>			OE <sub>4</sub>				
*	✓	✓	IED <sub>5</sub>								C5.1	CPART <sub>5</sub>				GGRA <sub>5</sub>			OE <sub>5</sub>				
✓	✓	✓	IED <sub>6</sub>								C6.1 C6.2 C6.3			SI <sub>6</sub>		GGRA <sub>6</sub>			OE <sub>6</sub>				
✓	✓	✓	IED <sub>7</sub>								C7.1	CPART <sub>7</sub>				GGRA <sub>7</sub>			OE <sub>7</sub>				not mentioned in newspaper evening edition

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Figure 7

The Recording of Information on the Research Instrument

## RELIABILITY

To test the reliability of the research procedure the source material from one school board meeting was first coded and recorded by the author. A second person was asked to code and record the same material and the results were then compared with each other. To check the reliability further, a third person was asked to code and record the same material. These results were compared to the results of the first procedure and the coefficient of reliability for these two was obtained. These results were then compared with those obtained by the second coding and the coefficient of reliability for these two was determined. The coefficient of reliability between the first and second was .88, between the first and third was .81, and between the second and third was .80. It was felt that this degree of reliability was sufficient for the purposes of this study.

## SUMMARY

There are two general classifications of systems - closed and open. Open systems are related to and exchange matter with their environments. Closed systems do not make exchanges with their environments. Open systems strive to be self-regulating while closed systems tend toward entropy and slowly "run down." All systems, except the very smallest ones, have subsystems and all but the largest ones have supra-systems.

One way of looking at systems is by using the input-conversion-output process. Inputs are divided into demands and supports. Demands may be further subdivided into four types; (1) extractive, (2) participative, (3) symbolic, and (4) regulative. Supports have been further classified into the following classes: (1) material supports, (2) obedience, and (3) deference.

The conversion process has been divided into political, governmental and communication functions. The political function is composed of one of the following: (1) articulations, or (2) aggregations or self initiations. The governmental function is made up of either rule application or rule making (rule adjudication). The communication function pertains to the passing of information concerning the demands and supports.

The outputs are the results of the inputs and the conversion processes. The outputs generally follow the nature of the inputs and are of four types: (1) extractions, (2) regulations, (3) symbols, and (4) allocations.

There are a number of other characteristics of systems that are not applied specifically to this model for studying actions of boards of education. However, some of them are included in this chapter because of the implications they may have for additional study of school board actions.

## CHAPTER IV

### CONTENT ANALYSIS PROCEDURES AND FINDINGS

The objectives of this chapter are to explain and demonstrate the use of the research procedure in an empirical situation in the general area of educational administration. As mentioned previously, this study was limited to the decisions of selected boards of education. A classification of the decisions of the boards into previously defined categories was attempted. One of the desired results of the application of this procedure is the gaining of additional insights into school board conversion processes.

#### The Application of the Research Procedure

The procedure for this research project was a content analysis of source material concerning meetings of boards of education. The primary data were secured from the official minutes of the board meetings. Each official action of the respective boards of education was analyzed and coded according to a previously developed coding system. (See Figure 6, p. 92.) The conversion process is interpreted to mean the procedure through which the board goes in changing inputs into outputs, i.e. changing requests and demands into rules

and regulations. Also, the decision of the board to refrain from making a decision or to table a decision until a future date would be classified as an output.

The conversion processes were tabulated and the school boards were ranked according to the total number of conversion processes that were produced during the selected meetings. Information about three other variables concerning these school boards was collected by utilizing a questionnaire and the latest Oklahoma Educational Directory. The three variables were (1) the size of the school district, (2) the level of support of the school community for educational purposes as indicated by the amount of the optional millage voted the past three years, and (3) the stability of the boards of education as evidenced by the tenure of its members.

Spearman's Rank-Difference Coefficient, hereafter referred to simply as Spearman's rho, was calculated to determine the degree of relationship between the rank of the boards of education as to the total number of conversion processes and the other variables. The ranks are presented in tabular form and the tables are accompanied by textual discussions for the purpose of clarification. The size of the rank-difference coefficient is an indication of the degree of relationship between the variables of the boards of education.

#### Collection of the Data

The data for this study were secured by analyzing the official minutes of the meetings of boards of education.

Each sentence of the board minutes was examined for content and implication. Every action by anyone present at the board meeting was analyzed and categorized according to previously developed definitions. These were recorded on the research instrument with the conversion processes being tabulated for future use in the study.

The board minutes were chosen in such a way as to give a representative sampling of board member actions. Official minutes of five meetings from each of fourteen boards of education were obtained. The minutes were from the meetings for the months of February, June, August, September, and November of 1968. It was felt that this range of material would supply sufficient source material for the purposes of this study.

The selection of the school boards for study was determined by the accessibility of the board records and the attitude of the board members and school administrators toward the study. Copies of the minutes of a total of fourteen boards of education were obtained. The minutes were examined to determine the number of conversions that were made by each board. The meetings were spaced throughout the school year in such a manner as to provide a wide range of material. Following is a short summary of the material that was contained in minutes of one of the boards of education:

February 5, 1968

Information in the reports on this meeting included reorganization of the board, claims and bills, bonds for school personnel, report of school treasurer, report on special lighting project, report by the Superintendent of Schools, and miscellaneous business.

June 3, 1968

This meeting included bids for a number of larger pieces of equipment and supplies, a financial report, an estimate of needs for funds for the ensuing school year, recommendations on employment of personnel, and miscellaneous items.

August 5, 1968

This material covered miscellaneous claims and bills, a rather large number of requests for instructional supplies and equipment, recommendations on personnel and miscellaneous business.

September 3, 1968

The recorded items for this meeting included investment recommendations, miscellaneous bills, reports on architects, recommendations on personnel, policy on corporal punishment, and miscellaneous items.

November 4, 1968

This meeting included miscellaneous claims and bills, contract for sale of real estate, review of school property insurance, report of clerk, report of architects, special report by the Superintendent of Schools, and miscellaneous items.

Following is a summary of the minutes of another board of education. It is similar to the one given above, but is listed to give another sample of the source material that was used in this study.

February 5, 1968

The information covered in this meeting was concerned with permission to attend professional

meetings, recommendations on personnel, bills for approval, budget estimate of needs, easements, and miscellaneous materials and supplies.

June 3, 1968

This material contained information on rental approvals, the Superintendent's report, recommendations on personnel, approval of Federal funds, bills and claims for approval, and requests for purchase of various supplies and equipment.

August 5, 1968

This material covered the Superintendent's report, recommendations on personnel, requests for authorization of payrolls, request for authority to purchase Federally reimbursed equipment, general purchases, claims and bills, and statement of Central Food Service Department financial condition.

September 9, 1968

This recorded information included a report on the number of students in the first day enrollment, recommendations of additional needs for certified personnel, request for payment of bills and payrolls, requisition of teaching supplies, requests of large numbers of general supplies and equipment, and a discussion of the formation of a Race Relations Committee.

November 4, 1968

This information included a report from the Northeast Race Relations Committee, recommendations on personnel, a request for payment of claims and bills, contracts for school sites and a report on the results of the School Board election.

A questionnaire was used to obtain information concerning the variables of school board membership stability and total millage voted by the school district. Twenty questionnaires were sent out to school districts which were chosen in such a way as to give satisfactory material for



comparison. Sixteen questionnaires were returned within two weeks. The information from fourteen of those returned was actually utilized in doing the comparative portion of the study. (See Appendix D.)

### Presentation of the Data

The results of this study are presented in the form of tables and textual discussions. The statistical treatment of the data is given in conjunction with the tables. Interpretations and preliminary conclusions are given. This presentation will hopefully provide tentative answers for the following questions: (1) What is the relationship between the number of conversion processes produced by a board of education and the size of the school district? (2) What is the relationship between the number of conversion processes of the board and the level of the financial support of the school patrons? and (3) What is the relationship between the number of conversion processes and the stability of the membership of the board?

First, the relationship between the number of conversions of the boards of education and the size of the school districts was determined. The school boards were ranked in Column two (see Table I, page 105) and three according to the total number of conversion processes with the board having the largest number being number one and the board having the smallest number being fourteen.

TABLE I

## RANK ORDER OF TWO VARIABLES

Number of Conversions - Size of School District

School District	Rank in Number of Conversions	Size	Rank in Size	d	d <sup>2</sup>
Oklahoma City	1	2609	1	0	0
Lawton	2	864	2	0	0
Shawnee	3	183	7	4	16
Muskogee	4	415	5	1	1
Midwest City	5	689	4	-1	1
Putnam City	6	749	3	-3	9
Washington	7	20	14	7	21
Okmulgee	8	156	9	1	1
Moore	9	314	6	-3	9
Choctaw	10	134	10	0	0
Edmond	11	173	8	-3	9
Hennessey	12	45	11.5	-.5	.25
Apache	13	35	13	0	0
Carnegie	14	45	11.5	-2.5	6.25
					<u>73.50</u>

$$r_d = 1 - \frac{6 (73.5)}{14 (196-1)} = 1 - \frac{441}{2730} = 1 - .16 = .84$$

In Columns four and five the schools were ranked according to size as designated by the number of teachers employed by the system. Spearman's Rho was calculated for these two rankings. According to Tate and Clelland "the more  $r_d$  departs from zero, the stronger the relation."<sup>1</sup> The significance of the relationship can be judged by squaring  $r_d$ . For example, when  $r_d$  is .18,  $r_d^2$  is .0324. This figure indicates that three percent of the variation of either variable is explained by its correlation with the other, while 97% is unexplained.

The calculation of  $r_d$  for these first pair of rankings results in  $r_d = .84$ . To determine the significance of  $r_d$ , square .84.  $.84^2$  equals .7056 or 70%. Therefore, 70% of the variation in number of conversion processes is explained by its relationship to the size of the school district. In other words, there is a 70% correlation between the two variables.

The relationship between the number of conversion processes and the level of financial support given the board by the school patrons was then determined. Again the schools were ranked with the school board having the greatest number of conversions as number one, etc. The results of this comparison are presented in Table II, page 107.

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<sup>1</sup>Merle W. Tate and Richard C. Clelland, Nonparametric and Shortcut Statistics (Danville: Interstate Printers and Publishers, Inc., 1957).

TABLE II

Number of Conversions - Level of Financial Support

School District	Rank in Number of Conversions	Millage	Rank in Millage	d	d <sup>2</sup>
Oklahoma City	1	50	8	7	49.00
Lawton	2	40	11	9	63.00
Shawnee	3	60	3.5	.5	.25
Muskogee	4	43	10	6	36.00
Midwest City	5	60	3.5	-1.5	2.25
Putnam City	6	60	3.5	-2.5	6.25
Washington	7	55	7	0	0.00
Okmulgee	8	47	9	1	1.00
Moore	9	60	3.5	-5.5	30.25
Choctaw	10	60	3.5	-6.5	42.25
Edmond	11	60	3.5	-7.5	56.25
Hennessey	12	25	14	2	4.00
Apache	13	35	12	-1	1.00
Carnegie	14	30	13	-1	1.00
					<u>292.50</u>

$$1 - \frac{6 (292.5)}{14 (196-1)} = 1 - \frac{1755}{2730} = .36$$

The calculation of  $r_d$  for this set of data results in  $r_d = .36$ . When .36 is squared the result is .1296. When this is changed to a percentage it indicates that these variables have a correlation of 13% which is rather low. The implication is that there is not actually much relationship between the number of conversions and the level of support for these selected school boards.

The last comparison was between the rank of the school boards according to the number of conversions and the stability of the membership of the board of education. The boards were ranked from one to fourteen for the number of conversion processes and from one to fourteen as to the length of tenure of the board members. Spearman's rho was calculated for the two ranks. (See Table III.) The  $r_d$  for the two ranks is .10. When  $r_d$  is squared to obtain its significance, the result is that there is no appreciable relationship between the two ranks.

One percent of the variation of the two ranks is caused by the relationship of the ranks. Ninety-nine percent of the variation is unexplained. Therefore, the conclusion concerning these ranks is that there is no appreciable relationship between the number of conversions and the level of financial support given the board.

#### Findings of the Study

The purpose of this study was to explore the possibility of adapting a systems framework for research in school board

TABLE III

## RANK ORDER OF TWO VARIABLES

Number of Conversions - Stability of Board Membership

School District	Rank in Number of Conversions	Stability	Rank in Stability	d	d <sup>2</sup>
Oklahoma City	1	2-1	4	3	9.00
Lawton	2	3- .5	7	5	25.00
Shawnee	3	7-2	13.5	10.5	110.25
Muskogee	4	5-1	13.5	9.5	90.25
Midwest City	5	2-1	4	-1	1.00
Putnam City	6	3-1	9	3	9.00
Washington	7	3-1	9	2	4.00
Okmulgee	8	2-1	4	-4	16.00
Moore	9	2-1	4	-5	25.00
Choctaw	10	0-7	1	-9	81.00
Edmond	11	4-1	11.5	.5	.25
Hennessey	12	2-1	4	-8	64.00
Apache	13	3-1	9	-4	16.00
Carnegie	14	4-1	11.5	-2.5	6.25
					<u>457.00</u>

$$r_d = 1 - \frac{6 (457)}{14 (196-1)} = .10$$

$$.10 \times .10 = .01$$

$$.01 = 1\%$$

decision making. The framework developed for this study did lend itself to this type of application. It was possible to code and classify the actions of the boards of education within the framework according to the procedure developed for that purpose.

In addition, the relationship of the number of conversion processes produced by boards of education to other variables was examined. The other variables were: (1) the size of the school district; (2) the level of financial support given by the community for school purposes; and (3) the stability of the board as indicated by board member tenure.

As indicated by Table I, there was a significant relationship between the size of the school district and the number of conversions produced by the board of education. The results of the calculations concerning the correlation between the level of financial support by the community and the number of conversions produced by the board revealed no significant relationship. Also, there was no significant relationship indicated by the correlation coefficient for the number of board conversions and the stability of the board as determined by the tenure of the board members.

The model made it possible to analyze the decisions of boards of education as an input, conversion, output process. The research procedure did reveal some differences in the conversion processes of boards of education. The minutes

of board meetings contained an accurate account of the board decisions in sufficient quantity to be valid for the purposes of this study.

#### Limitations of the Procedure

The dangers of generalizing too widely from the results of the procedure described above are evident. Although a definite effort was made to determine the comprehensiveness and accuracy of the source material, it may not actually describe all the actions that took place at the board meeting.

The results gained from this procedure is hopefully indicative of what takes place in board meetings, but it does not necessarily follow that these same things took place in the same way in all other school board meetings.



## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary

A need to develop a new procedure for analyzing the performance of school boards has been increasingly evident in recent literature pertaining to research in educational administration. This need has been brought about partly by the increasing complexity of school board activity and by the variations in school board activity in different places.

The purpose of this study was to develop an approach to studying the activity of school boards as an entity. This was to be accomplished by adapting a systems framework for this purpose and developing it to the point at which it could be used in doing practical research. The four-fold aspects of the problem were:

1. To extend the systems theory model developed by Almond and Easton to the study of school board decisions.
2. To develop an instrument derived from an extended model for use in making a systems analysis of school board decisions.
3. To test the instrument developed by applying it to sets of school board minutes from selected school districts in Oklahoma.

4. To test the productivity of a systems theory model for analysis of school board decisions.

One of the major objectives of this study was to make a contribution to previous efforts in the adaptation of systems theory concepts to research in educational administration. It was felt that a procedure was needed to examine the deliberations of a school board as a total operation as opposed to the emphasis of past endeavors which concentrated for the most part on individual board members.

In the preceding chapters a framework, based primarily on concepts by Almond and Easton, was extended and developed to the point at which it was used for systematically studying school board decisions. The development of the framework was such that it was possible to record all actions taken by the boards of education.

An effort was made to develop an instrument which would facilitate the orderly analysis of the procedures by which a school board processes demands and requests from the school community into decisions or outputs. Attempts were made to classify the actions of boards of education according to previously defined categories which were developed for this study from concepts in systems theory. Particular emphasis was placed on examining the conversion processes of the boards.

The testing of the instrument was accomplished by doing a content analysis of seventy sets of board minutes with the conversion processes of the boards being recorded

on the research instrument and subsequently tabulated. The school boards were then ranked according to the number of conversion processes which they produced.

The next step in the procedure was the ranking of the boards on three additional variables: (1) size of the school district, (2) the level of financial support by the community, and (3) the length of tenure of the board members. These variables were then compared to the rank order of the boards on the number of their respective conversions to obtain the relationship of these variables to the number of conversions. Spearman's rho was calculated for the rankings to determine their relationships. The procedure was sensitive to the different variables which were examined.

### Conclusions

One of the major objectives of this study was to explore the possibility of developing a more comprehensive approach to research in school board decision making. The idea of adapting a systems framework for this purpose was explored. Other purposes of this study were to determine the relationship between the number of conversions produced by a board of education and the following variables: (1) the size of the school district; (2) the financial support given by the community; and (3) the tenure of the board members.

1. The systems framework developed in this study offers a different approach to research in educational administration. This approach makes it possible to examine the

operation of the board as a whole and to examine some of the effects and countereffects of members as they function as a board. The activities of boards of education can be examined within the systems framework developed in this study. It would be possible to use this procedure to test the relationship of a number of variables associated with boards of education.

2. The instrument developed from this framework did allow for an orderly and systematic analysis of school board decisions as reflected in board minutes. The research procedure and instrument were sensitive to the different variables which were tested during the progress of this study. It was felt that the instrument would be useful in doing research on variables other than those included in the study.

3. The accuracy of the board minutes used in this study as source material was sufficiently high that it was felt that board meeting minutes are reliable enough to be used as source material in doing research in school board decision making.

4. Some of the board minutes which were utilized in this study seemed to be rather routinely recorded. The same type of material seemed to be recorded in about the same way and in the same sequence each meeting. There seemed to be very little departure from this same routine throughout the minutes for the five meetings of some of the boards. This seems to indicate that the conversion processes of boards of education are actually similar or are at least

recorded in a similar manner. A high degree of similarity of the conversion processes among the boards of education was apparent.

5. Another item which seemed to allude to the routine-ness of the recording of the decisions was the fact that in almost every instance an output was recorded for every input. It would seem that there would be some inputs placed into the system that would not be converted into outputs, but none were noted in the source material. This may be explained partly by the fact that the board clerk often tends to make no record of the input unless it is processed to the point at which it becomes an output.

6. Another observation that seemed significant was the different techniques that were used by newspaper reporters in reporting the actions taken during a school board meeting. There seemed to be three general approaches: (1) the reporter was actually present during the board meeting and gave a rather complete and concise report of the proceedings; (2) the reporter was present at the meeting but tended to report only the more sensational type proceedings; and (3) the reporter came by the administrative offices the next day after the meeting and wrote his report from what he was told by one of the persons who was present at the meeting. This points to the need for the authenticity of the newspaper articles to be determined before they are actually utilized in doing a study of this type. This could be done by developing a standardized interviewing technique.

### Recommendations

As a result of the application of the research technique developed in this study a number of recommendations may be made. One which has been mentioned previously is the need for the source material to be completely verified. If the board minutes are used as a primary source, they need to be inspected for accuracy and completeness. It would be desirable to attend a number of school board meetings to determine the preciseness with which the recording process was undertaken. The recording procedure for the board minutes should be accurate, comprehensive, and standardized among the boards for this research procedure to reach optimum reliability.

Other areas for further research concerning the conversion processes of boards of education were identified during the course of this study. Are the conversion processes stable enough to be predicted? Are the conversion processes of boards of education similar to other boards or does each board have its own unique conversion pattern? What are some stresses which tend to cause the conversion process to bog down?

It is possible that this procedure can be utilized in doing additional research concerning inputs into the school system. Such questions as the following may be worth pursuing. Where do the inputs for the system originate? What difference in stress do the inputs produce when they

are from different societal levels? What happens when the inputs become too numerous to be processed by the board? What are some techniques that a board may use in preventing an input overload?

This procedure may be used in doing research concerning the outputs of the system. Provision is made in the recording procedure to list the number and types of outputs that are produced by board action. Some conclusions concerning the efficiency and capability of the board could possibly be made by comparing the number and kind of outputs to the number and kind of inputs that were placed into the system.

Some specific questions that may be studied by using this research procedure are:

- (1) Where do the inputs for the school board system originate?
- (2) What happens when more inputs are placed into the system than the board is capable of processing?
- (3) What is the capability of a school board?
- (4) Do boards of education have unique conversion patterns or are they generally rather similar?
- (5) Do the so-called "successful" boards possess significant characteristic conversion processes which are different from those of less successful boards?
- (6) What are some significant stresses which tend to bog down the conversion processes of school boards?
- (7) Are the conversion processes of boards of education stable enough to be predictable?

- (8) How may a board recognize the point at which its outputs are approaching an unsatisfactory condition?
- (9) How may the board properly utilize the feedback from its environment, the community?

The kind and amount of source material provided for the present study warrant further study. Determining the adequate amount of source material needed in doing a study of this type is a problem which needs further study. More research should be done in this area in order to establish the validity and reliability of the research procedure. There may be some doubt that this study was comprehensive enough to satisfactorily reach the point at which the coding of additional source material would have no effect on the results obtained.

It is recommended that newspaper accounts, agenda and interview forms be utilized to a greater extent. These were examined to some degree in this project, but wider use of these sources could possibly make the results of the study more valid. It is strongly suggested that a standardized interview form be developed and used to complement the recorded decisions of the boards of education.

Lastly, it is imperative that additional attention and effort be directed to improving the coding procedure used in this study. Several coders should practice on the same source material, using the coding procedure outlined in the appendix. During these practice sessions, the concepts and



definitions should be refined when inconsistencies appear between the definitions and the material that is being produced by the coding procedure. An acceptable tolerance of variation should be determined for the coding process and the coders should study the material and practice the procedure until this level is generally attained. This training period may reveal inconsistencies which are basically attributable to the coders which would necessitate substituting new coders for some of the original ones. The coding procedure must be rather well standardized and the coders must adhere closely to the prescribed techniques for the research procedure to be satisfactory.

This study was written in hope that it will make some contribution to the general endeavor to develop a systems theory framework for research in educational administration and that the general endeavor will be a fruitful one.

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## **APPENDIX A**

### **CORRESPONDENCE RELATED TO THIS STUDY**

Cyril, Oklahoma  
November 19, 1968

I am doing my doctoral study on the decision-making process of boards of education. The main part of the study will be the classification of the decisions of boards of education according to definitions developed from systems theory literature. Let me assure you that no undesirable comparisons or statements will be made in the study concerning any board or school district. No value judgment whatsoever will be made. Basically, the study is a comparison of the type and method of decisions with other variables concerning the school district.

I know that you have a very busy schedule and I have reservations about adding to your heavy load. However, I would consider it a real favor if you could see that the following information is sent to me as soon as possible.

1. A completed copy of the enclosed questionnaire.
2. Copies of the minutes of your regular board meetings for February, June, August, September, and November of 1968. (I am interested in the board decisions only - basically informative material may be excluded.) I would prefer copies of minutes if you have a method of copying. If you do not have access to copying equipment, if you will send originals I will have them copied and will definitely return them to you. Just check the proper space on the questionnaire concerning the disposition of your minutes.

Stamps and a self-addressed label are enclosed for your convenience. You will be reimbursed for extra postage used, and for other materials used if you will let me know the amount.

Sincerely,

Garland Hollars

jh  
Enclosures

## **APPENDIX B**

### **RESEARCH INSTRUMENT**

# RESEARCH INSTRUMENT

SOURCE			INPUTS								COMM.	CONVERSION						OUTPUTS				COMMENTS	
			DEMANDS				SUPPORTS					POLITICAL				GOVERNMENTAL							
A	M	Z	Ext.	Sym.	Reg.	Par.	Mat.	Obed.	Def.	Eval.		Art.	Agg.	S.I.	Un.	R.A.	R.M.	R. Adj.	Ext.	Reg.	Sym.	All.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

## **APPENDIX C**

### **CODING OF DEFINITIONS**

## CODING OF DEFINITIONS

## INSTRUCTION SHEET

## INSTRUCTIONS

After the coder has familiarized himself with the definitions, he should go through the board meeting agenda, the minutes, and newspaper articles concerning the board meeting, and classify every action taken during the board meeting according to the definitions and classifications listed below. When this is completed this information should be entered on the research instrument in the appropriate columns.

## DEFINITIONS

The following are definitions of the concepts that are to be used in classifying and coding the material found in the different sources. The column number and the code number to be used on the table are listed with the definition.

Column Number	Definition	Code
	<u>SOURCE</u> - This refers to the medium in which the action of the school board is reported.	
1	(1) <u>Agenda</u> - The agenda of the board meeting.	A
2	(2) <u>Minutes</u> - This refers to the minutes of the board meeting.	M
3	(3) <u>Newspaper</u> - This will denote the newspaper account of the board meeting.	N
	<u>INPUTS</u> - Inputs may be either in the form of a request or of support that is voiced by a member of the board or other individual during an official board meeting.	
	<u>Demands</u> - This is a statement that an action should or should not be taken by those responsible for doing so.	

Column Number	Definition	Code
4	(1) Extractive Demands - These are demands which pertain to the material goods and services under the control of the board.	IED <sub>1</sub> ..IED <sub>n</sub>
5	(2) Symbolic Demands - These requests establish the basis for governmental action regarding meetings, publications, tributes and special programs.	ISD <sub>1</sub> ..ISD <sub>2</sub>
6	(3) Regulative Demands - These are demands pertaining to the governing of the behavior of members of the school board or its employees.	IRD <sub>1</sub> ..IRD <sub>n</sub>
7	(4) Participative Demands - These include demands by individuals or groups to take part in the decision making of the board.	IPD <sub>1</sub> ..IPD <sub>n</sub>
	<u>Supports</u> - These are supportive acts which provide materials, services, obedience and deference.	
8	(1) Material Support - These are supports such as finances from taxes, contributions, gifts or endowments and personnel qualified to fill the various positions in the school system.	IMS <sub>1</sub> ..IMS <sub>n</sub>
9	(2) Obedience - This input refers to the willingness of school board employees to obey the rules and regulations of the board.	IOS <sub>1</sub> ..IOS <sub>n</sub>
10	(3) Deference - This denotes the giving of moral support by the employees to the action of the board. It implies that employees will act or not act in any way so as to oppose an action of the board.	IDS <sub>1</sub> ..IDS <sub>n</sub>
11	(4) Evaluative Support - Inputs denoting admiration, appreciation, praise, etc.	IES <sub>1</sub> ..IES <sub>n</sub>



Column Number	Definition	Code
12	<p><u>COMMUNICATION</u> - This refers to the transmission of information concerning an input. This must be immediately preceeding or following an input. The communication should bear the same subscribe as the input to which it refers. (Input <math>IRD_1</math> should have <math>C_1</math> etc.) Some inputs may have more than one communication concerning it. All the communication coding concerning one input should be placed in the space immediately across from the input code.</p>	$C_1 \dots C_n$
	<p><u>CONVERSION</u> - The processing of an input to the point that it becomes an output.</p>	
	<p><u>Political</u> - Actions which provide ways for the inputs to cross the boundary into the system - the action of the environment upon the system.</p>	
13	<p>(1) Articulation - When a board member or other individual actually voices a demand or support which originated outside the meeting.</p>	$CPArt_1 \dots CPart_n$
14	<p>(2) Aggregation - The consolidation of two or more demands into a single policy proposal.</p>	$CPAgg_1 \dots CPAgg_n$
15	<p>(3) Self Initiated - When the input actually originates within the board meeting.</p>	$CPSI_1 \dots CPSI_n$
16	<p>(4) Undetermined - This classification is to be used when the method of entry into the system is not given.</p>	$CPUN_1 \dots CPUN_n$
	<p><u>Governmental</u> - The making of a decision to take action.</p>	
17	<p>(1) Rule Making - A statement of a decision or policy based upon the adoption or rejection of one or more proposals.</p>	$CGRM_1 \dots CGRM_n$

Column Number	Definition	Code
18	(2) Rule Application - An action which applies local rules or state laws to a policy proposal.	CGRA <sub>1</sub> ..CGRA <sub>n</sub>
19	(3) Rule Adjudication - A decision following the presentation of opposing policy proposals.	CGRAdj <sub>1</sub> ..CGRAdj <sub>n</sub>
	<u>OUTPUTS</u> - The results of the input and conversion processes - the action that the system takes on its environment or itself.	
20	(1) Extractions - Decisions due to demands for goods or services.	OE <sub>1</sub> ..OE <sub>n</sub>
21	(2) Regulations - Policy statements due to demands to participate in formulating rules and regulations.	OR <sub>1</sub> ..OR <sub>n</sub>
22	(3) Symbols - Decisions by the board to schedule symbolic events or actions.	OS <sub>1</sub> ..OS <sub>n</sub>
23	(4) Allocations - This refers to the product and services provided by the board of education.	OA <sub>1</sub> ..OA <sub>n</sub>
24	<u>COMMENTS</u> - This column may be used for recording general information.	COMM <sub>1</sub> ..COMM <sub>n</sub>

**APPENDIX D**

**QUESTIONNAIRE**

## QUESTIONNAIRE

1. Please give the amount of the optional (10-5-5) millage voted by your school district for the last three years - 1965-66, 1966-67, 1967-68.

\_\_\_\_\_ 1965-66  
\_\_\_\_\_ 1966-67  
\_\_\_\_\_ 1967-68

2. How many bond issues have been presented to school patrons in your district for their approval or rejection in the last five years?  
\_\_\_\_\_ How many issues passed?

3. Please place your school board in the proper category as to the percentage of board decisions that are actually unanimous.

\_\_\_\_\_ 100%  
\_\_\_\_\_ 95-100%  
\_\_\_\_\_ 90-95%  
\_\_\_\_\_ 80-90%  
\_\_\_\_\_ 60-80%  
\_\_\_\_\_ Less than 60%  
\_\_\_\_\_ Other (fill in percentage)

4. How would you classify your school district as to its growth over the past five years:

\_\_\_\_\_ rapid  
\_\_\_\_\_ moderate  
\_\_\_\_\_ slight  
\_\_\_\_\_ stable  
\_\_\_\_\_ decreasing  
\_\_\_\_\_ other (Please explain) \_\_\_\_\_

5. \_\_\_\_\_ (a) How many members serve on your board of education?  
\_\_\_\_\_ (b) How many have come on as new members in the past five years?  
\_\_\_\_\_ (c) How long has it been since the last new member came on your board?

6. Please check one of the following so that I may return the copies of your minutes if you so desire:

\_\_\_\_\_ You may destroy copies of minutes when finished.  
\_\_\_\_\_ Please return minutes for a permanent file.