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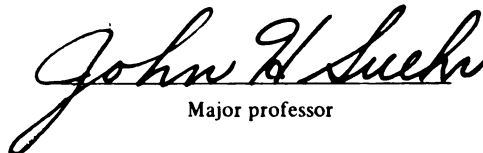
AN ASSESSMENT OF THE DECISION-MAKING PROCESS
IN SELECTED PUBLIC ELEMENTARY SCHOOLS
IN PERNAMBUCO, BRAZIL: AN
EXPLORATORY STUDY

presented by

Alayde Gouveia Machado

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of the requirements for

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1977

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EXPLORATORY STUDY

By

Alayde Gouveia Machado

A DISSERTATION

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ABSTRACT

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Purpose of the Study

The purposes of this study were: (1) to describe in detail the decision-making process in a sample of recent decisions in which personal and environmental factors were examined to determine possible basic differences among the principals; and (2) to focus on the decentralization of the decision-making process in terms of autonomy at the level of the *complexos escolares* (experimental school complexes).

Methodology

The semistructured individual interview was administered to 22 principals in Pernambuco. The interview guide was based on a review of the literature about three models of the decision-making process, viz., the *rational comprehensive*, the *incrementalist*, and the *mixed-scanning model*.

Findings of the Study

Four research questions guided the analysis of data and suggested the findings that follow:

Research Question 1:

Which specific decision-making model do principals consider during the decision-making process?

The principals tended to follow, if any, the *incrementalist approach* in the decision-making process.

Research Question 2:

In which areas of school concerns do principals have authority to make decisions, and what is the participation of the staff in the decision making?

Authority for some school matters has not yet been decentralized at the level of the *complexos escolares*. Where principals were free to make decisions, however, the staff was involved.

Research Question 3:

Is there any kind of information or advice network giving input to the principals in the decision-making process for specific areas of school concerns?

The findings indicated that *endogenous* groups contributed to the decision-making process. However, a small number of principals were influenced by *exogenous* groups.

Research Question 4:

Are there basic differences among the principals with respect to certain selected personal-social and environmental variables?

The findings suggested that there were differences among the principals with respect to five demographic factors, viz., degree status, annual salary, family income, absenteeism, and proximity of the school to the offices of Secretariat of Education and Culture.

Deviant Case

Among the 22 principals interviewed for this study, three failed to meet the criteria established by the researcher for selecting decisions for this analysis of the dynamics of decision-making. These three cases were treated as deviant.

The findings indicated that nine demographic factors may affect the behavior of a principal in making decisions: experience in teaching and in being a principal, his/her current principalship, his/her subscription to educational journals, meetings, workshops and seminars, communication flow, and his/her absenteeism.

Recommendations

Further research is recommended:

1. to study the decentralization of the decision-making process, e.g., in decisions about the promotion and evaluation of pupils, and about the community and the parents.

2. to study the influence of staff members in the decision-making process, according to their area of expertise.

3. to determine the influence of personal-social variables and principals' behavior on the making of decisions.

4. to continue the study of the decision-making process of the deviant principals.

5. to initiate a study on a larger sample including principals of other Brazilian elementary schools (*Primeiro Grau*).

To the memory of my parents
Adauto Gouveia Lima and
Aurora Machado Gouveia
who if they were alive
would be proud of my
academic accomplishments.

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CHAPTER I

INTRODUCTION

Most Third World countries, fighting against ignorance and poverty, regard education as a major tool to alleviate these problems. Thus their respective governments have invested heavily in education, so that they can keep pace with the radically changing modern world and at the same time bring a measure of the "good life" to their people.

In the case of Latin American countries, this movement toward technical and economic development is indeed underway. However, Salas has pointed out that

Latin America is only slowly seeking its own directions in the matter of education, for which purpose it must re-establish the relation of interdependence between education and society, so that the former may effectively respond to the present-day needs of the peoples of Latin America and to the interests, needs and aspirations of its inhabitants. Only in this way can our education be converted into an investment capable of bringing us out of underdevelopment and leading us to the full realization of our personality as individuals, as peoples and as nations.¹

¹Irma Salas, "Education in Latin America Between its Past and the Future," *Quarterly Review of Education* 3 (Spring 1973): 69 (in UNESCO, *Prospects*).

Further, she says:

The educational system of Latin America has mirrored the social structure prevailing in Europe in the colonial era and, because of that, their democratization has taken place very gradually, in proportion to the transformation of our society.²

In spite of the fact that what Salas says is very true, there are signs of considerable progress toward the democratization of the educational systems in Latin America. Many countries have undergone educational reforms (during the early 1970s) that aim at providing an education suitable for each individual.

The UNESCO Report of the International Commission on the Development of Education, *Learning to Be, the World of Education Today and Tomorrow*, stated:

It is striking to note that the entire world is now moving towards one and the same objective: universal school attendance. The aim is at the primary level in countries where this has not yet been legally instituted or has yet to come into effect; or in cases where basic schooling has been or is being broadly achieved, at the "upper primary" or secondary level. . . . The above-mentioned fact is all the more remarkable in that the principle of giving every child an elementary education only goes back a century or even, in most regions, a few decades or years.³

²Ibid.

³UNESCO, *Report of the International Commission on the Development of Education*, 18 May 1972.

Brazil can be cited as a country that has made considerable progress in the direction of instituting compulsory education at the primary level. The *Constitution of Brazil, 1967*, had this to say: "Education of children from seven to fourteen years of age is compulsory for all and free in the official elementary institutions."⁴

This fact provoked the increasing disequilibrium between the demands of the school population and the offerings available in the nation's schools. The elementary school enrollment has increased greatly, but the physical capacity and other amenities of each elementary school has not always increased as yet. This set of conditions is mainly observed in the less affluent states of the nation.

As a consequence of this, Federal Law 5692, Directives and Fundamentals of National Education, enacted in Brazil in August 1971, called for a restructuring of education throughout the nation, with particular emphasis on decentralization of decision making and on various modes of collaboration or amalgamation among schools that, largely because of their small size, were incapable of providing adequate programs.

⁴Brazil, *Constitution* (1967), Title IV, art. 168, paragraph 3.II.

To keep pace with the reform, the educational system of each state of the nation had to organize projects that would provide for the most efficient utilization of the school buildings, as well as projects related to curriculum. This, it was assumed, would give the system greater flexibility, for example in providing for emphasis on practical subjects and for a rate of progress suitable for each student.

Subsequent to the educational reform law, the Departamento de Ensino Fundamental (Department of Fundamental Instruction--abbreviated DEF) published several models⁵ which might be considered in the light of special circumstances. In Pernambuco, from which the sample for this study was drawn, the Secretariat of Education and Culture was responsible for the decision about which of the models would be adopted, but the implementation of the model was left in the hands of the local authorities.

Among the models suggested by the DEF, and adopted by Pernambuco's Secretariat of Education and Culture, is the one known as the *complexo escolar* (experimental school complex). This model was selected because it seemed to be the most widely applicable and thus have the greatest potential for improving education in the state.

⁵Departamento de Ensino Fundamental, "Ensino Fundamental e Espaço Físico--sugestões para utilização da rede escolar na implantação do Ensino Fundamental." *Educação* 1 (April-Junho 1971): 33-35.

The *complexos escolares* were created by decrees 2632 of October 1972 and 3092 of February 1974 and are formed by integrating various schools of the traditional *primário* and *ginásio*.⁶ This integration was proposed so that the State could cope both with the quantity and the quality of learning and development.

It was assumed that the principals, teachers, supervisors, counselors, and students in this aggregation would work together effectively to accomplish the goals of the educational reform. However, evidence has emerged to suggest that the implementation of the model has not been totally satisfactory. A task force, comprised of specialists from Pernambuco's Secretariat of Education and Culture, and the Departamentos Regionais de Educação I e II (Regional Departments of Education--abbreviated DERE) identified, in the report called "Estudos sobre os Complexos Escolares," November 1975, numerous cases where improvements could be made in the existing *complexos escolares*, even with the present constraints on facilities and staff.⁷

⁶*Primário*: education offered to children aged 7-11 (corresponds to elementary education in the U.S.A., grades one to four). *Ginásio*: education offered to children aged 11-14 (corresponds to junior high school in the U.S.A., grades five to eight).

⁷Secretaria da Educação e Cultura, "Estudos sobre os Complexos Escolares," Recife, 1975 (typewritten).

Yet this experimental approach and other innovations must and will remain in effect for some years, for the better functioning of the educational program for children 7 to 14, because the country in general and the state of Pernambuco in particular cannot immediately afford to build new schools and to furnish other facilities which will be necessary to meet the requirements of the new education law.

In the light of such conditions, the problem of the study was to assess the decision-making process in a sample of selected *complexos escolares* in Pernambuco, with particular attention to the strengths as well as the weaknesses.

Research Questions to Be Answered

Research Question 1:

Which specific decision-making model do principals consider during the decision-making process?

Research Question 2:

In which areas of school concerns do principals have authority to make decisions; and what is the participation of the staff in the decision-making process?

Research Question 3:

Is there any kind of information or advice network giving input to the principals in the decision-making process for the specific areas of school concerns?

Research Question 4:

Are there basic differences between principals with respect to certain selected personal, social, and environmental variables?

Based on the stated questions, this study had a twofold purpose:

First, the study was to describe in considerable detail the dynamics of the decision-making process, in a sample of recent decisions. Ancillary to this was the exploration of personal and environmental factors to determine whether there are basic differences among principals.

Second, the research was to focus on the extent to which the legislation mandating the decentralization of the decision-making process has actually been implemented, e.g., as reflected in autonomy at the level of the *complexos escolares*.

Procedures

The researcher contacted the Secretary of the Secretariat of Education and Culture for the State of Pernambuco, to obtain official permission to conduct the study.

Specialists from the Diretoria Executiva (Executive Directorate) of the Secretariat of Education and Culture helped to identify the six *complexos escolares* that showed diversity in the personal and environmental variables to be researched in the study. The selection was based on the knowledge and experience of these specialists.

After this process, the principals of the schools identified were personally contacted by the researcher and were given a letter (Appendix A) explaining the nature and the purpose of the study.

The researcher administered the semistructured interview (Appendix B) to the principal at each school of the six *complexos escolares*, out of the total of nine *complexos* in the State of Pernambuco. The interviews were scheduled during school hours, between October 20 and November 26, 1976.

Significance of the Study

There are many grounds for undertaking a study of this nature. This researcher investigated facets that:

1. may add to our knowledge of the decision-making process in educational situations, and also show the basic personal and environmental differences among principals and enhance other research on the influence of these factors on the decision-making process.
2. may help refine and extend our methodologies for the investigation of the decision-making process.
3. may reveal strengths or shortcomings in the decision-making process in the sample *complexos escolares*, and provide information that will have

the promise of wide applicability for the improvement in education of Brazil.

4. Provide cross-cultural data to compare American systems.

Limitations of the Study

In this study it is important to observe that:

1. generalizations must be drawn carefully and tentatively because of the small sample size and the experimental nature of the program of these schools.
2. the nature of the selection of decisions to be studied were such that the conclusions may not apply to all types of decisions, even in the *complexos escolares* of the sample.

Definitions

The following specific definitions are offered for the terms used in this study.

Departamento de Ensino Fundamental (abbreviated DEF): unit of the Ministry of Education and Culture (abbreviated MEC) constituted to assist, technically and financially, elementary education (*Primeiro Grau*).

Primeiro Grau: education offered to children age 7 to 14, during a period of eight school years. Each year must have a minimum of 720 hours of activities.

Ensino Primário: education offered to children aged 7 to 11.

Ginásio: education offered to children aged 11 to 14. (Enactment of the Federal Law No. 5692, August 1971, has put into motion the gradual phasing out of the *Ensino Primário* and the *Ginásio*.)

Secretaria da Educação e Cultura (abbreviated SEC): unit of the Executive Power, whose duties are the development, in the state educational system, of coordination and planning, decision-making, and delivery of educational service (Law no. 6473, December 27, 1972).

Diretoria Executiva (abbreviated DEXE): unit of the basic administrative structure of the Secretariat of Education and Culture that is responsible for: (a) coordination of the institutions delivering educational services of the state's educational system; and (b) program coordination and control of the activities of the DERE.

Departamentos Regionais de Educação (abbreviated DERE): units of the Secretariat of Education and Culture, installed in certain *municípios* for the purpose of decentralizing the functions of the Secretariat of Education and Culture.

Núcleo de Supervisão Pedagógica (abbreviated NSP): units of the Secretariat of Education and Culture, installed in certain *municípios* for the purpose of decentralizing the functions of the Secretariat of Education and Culture. (Enactment of the State Law no. 6617, November 13, 1973, has put into motion the gradual phasing out of these units.)

Complexos Escolares: the integration of various schools of the traditional *Ensino Primário* and *Ginásio* with the idea of using available space and facilities in some schools to overcome the deficiencies of the others.

Município: local administrative unit, through which all political activities flow.

Organization of the Study

Chapter I spells out the general and specific problem and the purpose of the study. A specific definition of terms is also presented to allow the reader fully to understand the study.

Chapter II reviews the literature pertinent to the study. It is presented in three sections that provide background for the problem to be investigated, namely, the dynamics of the decision-making process in selected schools of the *complejos escolares*.

Chapter III provides a description of the sample, along with the measures used to collect the data. The description of the procedures includes changes that had to be made because the schools were not functioning in accordance with the proposed model.

Chapter IV presents and interprets the major findings. In addition, it shows an apparent deviant case, to allow for a clarification and understanding of the analysis of results.

The conclusions and recommendations are to be found in Chapter V, in addition to implications that might be of value in possible future research.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The literature to be reviewed will be from three areas that provide background for the problem to be investigated:

1. The legal institution, the concept and the characteristics of the *complexo escolar*;
2. Characteristics of the decision-making process; and
3. Empirical studies of decision making.

The Institution, the Concept, and the Characteristics of the *Complexo Escolar*

The institution of the complexos escolares. The new Educational Law 5.692 which sets out the directions and basis for the Brazilian National Educational System was enacted in August 1971 and mandated the restructuring of the system. The old *Primário* (the first four or five years of schooling) and the *Secundário* (the next three years of schooling) are to be replaced by the new *Primeiro Grau*, or "first level"--eight years of basic education. A *Segundo Grau*, or "second level," three years long, will follow the eight years of the *Primeiro Grau*. The *Primeiro Grau* is

designed for children from the age of seven to fourteen and is to be mandatory as prescribed under the *Constitution* of 1967.¹

As a consequence the state's educational system had to be revised. Among the many things the system is concerned with is the rational utilization of the school buildings, taking into account the increased enrollment. This important matter has been discussed at national and international levels since 1956, in meetings concerned with education and its relation to economic development. These meetings were held in Lima and New Delhi, 1956; Genebra, 1957; Punta del Este, 1961; Santiago del Chile, 1962; Bogotá, 1963; Brasilia, 1963; Madrid, 1964; and Brasilia, 1964/1965.²

These meetings reinforced the idea that the new basic education should be offered in buildings constructed or restructured under rational criteria which assure the total utilization of human and material resources, without duplication of means for identical or equivalent ends.³

¹Brazil, *Constitution* (1967), Title IV, article 168, paragraph 3.II.

²Departamento de Ensino Fundamental, "Ensino Fundamental e Espaço Físico--Sugestões para utilização da rede escolar na implantação do Ensino Fundamental," *Educação* 1 (Abril-Junho 1971): 30.

³Ibid.

Although this is a plausible use, it will undoubtedly have initial problems in implementation and interpretation. The DEF in the following excerpt attempts to put the matter in its proper perspective.

There is no doubt that for many years yet, it will be necessary to have projects of adaptation for the schools, to ensure better functioning of fundamental instruction. However, the strength of the project, e.g., up-dating and expanding teaching, rest in the pedagogical integration and not in the spacial integration of the present primary school and gymnasium. Obviously for the ideal functioning of fundamental education it would be necessary to offer eight school years in the same school, with appropriate space and school equipment.⁴

The DEF also suggested to the Secretariat of Education and Culture different ways of handling the physical problem, the efficient utilization of existing school buildings to accommodate the increased enrollment.

The integrated educational units--also called integrated schools or educational centers, should be composed of a set of schools at *primário ginásio* levels and in some cases at the *colegial* level and should be seen in terms of two modalities:

- (a) procuring an area of suitable land which is large enough to accommodate a building of many rooms. This building should be designed for the following levels: primary, gymnasium and middle school. The students will have the common use of workshops, library, laboratories, recreation room and canteen.
- (b) using the existing school buildings of the system. For example, *escolas primárias* that

⁴Ibid., p. 31.

neighbor a *ginásio* will be integrated in curricula and programs. Together they will be under a common administration.⁵

The educational system of the State of Pernambuco (Brazil), taking into account the Federal Law and the suggestions of the DEF,

. . . is progressively implementing the education program of the first level, which is intended to reach children of the age group 7-14. This program varies in content and in method according to the development of the pupil and offers conditions for social adjustment through the explorations of a student's practical capabilities by considering the bio-psycho-social needs of the students of this age cohort.⁶

According to the 1974/1977 Educational Plan for the State of Pernambuco, the State took measures regarding the reorganization and the operation of the school buildings, transforming them into institutions of the *Primeiro Grau*, with the objective of using community resources to foster the productivity of the system. These measures focused on the education system in general but on the *complexo escolar* in particular.

⁵Ibid., p. 32.

⁶Governo de Pernambuco, Secretaria da Educação e Cultura, *Plano Estadual da Educação, Diagnóstico, 1974-1977*, p. 107.

The decree 2632 of October 1972 legally created the *complexo escolar* of Santo Amaro, in the capital of the State, Recife.⁷

Fifteen months later, the decree 3092 of February 1974, legally created the *complexos escolares* of the Casa Amarela, Ibura, and Pina. These are also located in Recife. The *complexos escolares* of Nazaré da Mata, Arcoverde, Garanhuns, Petrolina and Camaragibe are located in the other *municípios* of the State.⁸

The concept of the *complexo escolar* and the characteristics of the *complexos escolares*. *Complexos escolares* are formed by integrating various schools of the traditional *primário* and *ginásio*, to use the space available in some schools to make up for the lack of space in others, and to promote the gradual installation of a teaching program, first to eighth grades inclusive, which involves an exploration of the student's practical capabilities.⁹

The structure of each *complexo escolar* involves the principals of the schools that form a *complexo escolar*. These individuals comprise a Board of Directors. They elect from among themselves one member who will be the coordinator

⁷Governo de Pernambuco, Secretaria da Educação e Cultura, "Decreto 2632," *Diário Oficial do Estado de Pernambuco*, 27 Outubro 1972.

⁸Ibid., "Decreto 3092," 28 Fevereiro 1974.

⁹Secretaria da Educação e Cultura, p. 108.

or General Director of the *complexo escolar*. The technical pedagogical sector is made up of teachers and specialists in general education, vocational education, educational counseling, and medical and dental services. The administration is composed of secretaries, clerical workers, and an administrative assistant.¹⁰

"Resolution Number 3" of August 2, 1973, of the State Council of Education listed the *matérias* of the diversified part of the curriculum and set the norms for its organization.

The school week of the *complexo escolar* will be 22 hours long for the first through the fourth grades, and 27 hours long for the fifth through the eighth grades.¹¹

During the initial years, but not continuing beyond the fifth, children are in general to follow a common program that includes studies of interpersonal communication and expression, social integration and an introduction to the sciences, including mathematics, physical education, artistic expression, civics and hygiene. Religious instruction must be offered in all public schools, but it is optional for students.¹²

¹⁰ Ibid.

¹¹ Ibid., p. 109.

¹² Thomas E. Weil et al., *Area Handbook for Brazil*, 3d ed. (Washington, D.C.: Foreign Area Studies Division of the American University, 1975), p. 17.

In the upper elementary years, i.e., from fifth through the eighth years, the program of the *complexo escolar* includes the following:¹³

	5th (hrs)	6th (hrs)	7th (hrs)	8th (hrs)
Interpersonal Communication and Expression				
Portuguese	5	5	5	5
Foreign Language	2	2	2	2
Artistic Expression	2	2	2	2
Physical Education	2	2	2	2
Social Studies	4	3	-	-
Geography	-	-	2	1
History	-	-	1	2
Religion	1	1	1	1
Civics	-	1	-	-
The Political & Social Organization of Brazil	-	-	1	1
Science				
Science	3	3	3	3
Mathematics	4	4	4	4
Practical Arts	4	4	4	4

The *complexos escolares* function six days a week, from Monday through Saturday, in two shifts. The school year of 180 days is divided into two periods, with a vacation of 30 days in the month of July.

The classes of the *complexos escolares* are arranged according to the following scheme:¹⁴

¹³ Secretaria da Educação e Cultura, p. 109.

¹⁴ Ibid., p. 108.

<u>Class</u> <u>(Grade)</u>	<u>Number</u> <u>of Pupils</u>	<u>Age</u> <u>(years)</u>
1st	35	7 and 8
2nd	35	8 and 9
3rd	40	9 and 10
4th	40	10 and 11
5th	40	11 and 12
6th	40	12 and 13
7th	40	13 and 14

To be enrolled in each grade the pupil must reach the age for that grade by November 30th of the same year.

The recommended enrollment for these experimental schools is 1,600 to 2,400.

Schools with enrollment of 1,600 should have 20 classes of the 1st to 4th, and 20 classes of the 5th to 8th. Schools with enrollment of 2,400 should have 30 classes of the 1st to 4th, and 30 classes of the 5th to 8th.¹⁵

This is how the *complexos escolares* were to be organized to achieve the goals of basic education, and at the same time to accommodate the increased enrollment. The plan is meant to improve basic education, especially in the less affluent states.

In the next section of this chapter, the characteristics of the decision-making process will be presented, toward an understanding of the dynamics of the decision-making process in a sample of selected *complexos escolares*.

¹⁵ Ibid., pp. 108-109.

Characteristics of the
Decision-Making Process

In this section the distinction between major types of administrative decisions is discussed.

Secondly, this section will present three alternative approaches to decision making--rational-comprehensive, incrementalist, and mixed-scanning--which, in Etzioni's words, "relate to each other dialectically in that the incrementalist approach is antithetical to the rationalistic one, and mixed-scanning attempts a synthesis."¹⁶

Major Types of Administrative
Decisions

The whole structure of an organization is permeated by the decision-making process; its members are continuously faced with it, and it is exercised at every level.¹⁷ In the field of education, thousands of specific decisions must be made within a year, all somewhat different from each other. Hence, it is important to distinguish between the more and the less trivial ones. As Dill notes, "for different kinds

¹⁶ Amitai Etzioni, *The Active Society* (New York: The Free Press, 1968), p. 295.

¹⁷ Robert Teriot Livingston, *The Engineering of Organization and Management* (New York: McGraw-Hill Book Company, Inc., 1949), p. 97.

of decisions, different amounts of time and different sorts of skills are required of the organization."¹⁸

According to Livingston, two major types of decisions are made in an organization: (1) Occasional superior or formal; (2) Routine or habitual.¹⁹ He notes that both kinds of decisions are found at every level of the organization's hierarchy.²⁰

Occasional decisions, as the name implies, are those which are not regularly recurrent. Once made, one of them should not have to be made again unless the basis upon which it was made has changed. . . . Routine or habitual decisions usually concern immediate alternatives--problems of interpretation with the sub-area of a major decision.²¹

Selznick suggests that the literature dealing with the study of organizations and decision-making shows a great concern with routine process. He points out that

"routine" need not mean unimportant, nor lacking in research interest. Rather it refers to the solution of day-to-day problems for their own sake. . . . They have to do with the conditions necessary to keep organizations running at efficient levels.²²

¹⁸ William R. Dill, "Varieties of Administrative Decisions," in *Readings in Managerial Psychology*, ed. Harold S. Leavitt and Louis A. Powdy (Chicago: University of Chicago Press, 1964), p. 714.

¹⁹ Livingston, p. 97.

²⁰ Ibid.

²¹ Ibid., pp. 97-100.

²² Philip Selznick, *Leadership in Administration, A Sociological Interpretation* (New York: Harper and Row, 1957), p. 31.

When policies in an organization are already established in such a way that there is little room for self-definition, nearly everything can be considered routine. As Selznick points out, "routine experience works out the detailed applications of established canons."²³ He further states that "decisions affecting institutional development are critical decisions. When made consciously they reflect or constitute 'policy' in its traditional sense."²⁴ Putting the same matter another way, Dill writes:

The distinction lies between "routine" decisions, which can be made without changing the character of the organization and "critical" decisions, which raise questions about the basic values to which the organization subscribes.²⁵

In Dill's terms, what Selznick identifies as critical decisions, March and Simon identify as planning decisions.²⁶

Stufflebeam classifies decisions along two dimensions: (1) whether the decisions pertain to ends or means, and (2) the relevance of the decision.²⁷

²³ Ibid., p. 60.

²⁴ Ibid., p. 56.

²⁵ Dill, p. 717.

²⁶ Ibid., p. 718.

²⁷ Daniel L. Stufflebeam et al., *Educational Evaluation and Decision-Making*, Phi Delta Kappa National Study Committee on Evaluation (Itasca, Ill.: F. E. Peacock Publishers, Inc., 1971), p. 80.

Sharples, working with Stufflebeam's ideas, presented a modified version of his typology, with the implications that all educational decisions may be classified as one of the four types:

1. Policy planning decisions to determine goals and objectives.
2. Implementing planning decisions for the design of intended procedures.
3. Operational decisions to utilize, control and refine procedures.
4. Evaluating decisions to assess and react to the degree of consumer satisfaction.²⁸

Figure 1 represents Sharples's adaptation of Stufflebeam's typology of decisions. As he notes appropriately, the nature or type of decision being considered influences the analysis of decision-making, determining its usefulness.²⁹

Lindblom, discussing the relation between decision and the different situations in which they can be used, notes that they can be characterized along two continuums. One continuum aggregates decisions that can effect change, and they are classified as "small" or "large" ones. On the other continuum decisions are arranged according to the

²⁸ Brian Sharples, "Rational Decision-Making in Education: Some Concerns," *Educational Administration Quarterly* 2 (Spring 1975): 58.

²⁹ Ibid.

		RELEVANCE	
		Intended	Actual
PURPOSE	Ends	Type 1 Policy planning to determine goals and objectives	Type 4 Evaluation and recycling to judge attainments
	Means	Type 2 Implementing planning to design procedures	Type 3 Operating to utilize control and refine procedures

Figure 1. Types of Decision.

Source: Brian Sharples, "Rational Decision-Making in Education: Some Concerns," *Educational Administration Quarterly* 2 (Spring 1975): 59.

degree of understanding of the decision makers.³⁰ The combination of these two continuums forms four recognizable types of decisions:

- (a) decisions that effect large changes and are guided by adequate information and understanding;
- (b) decisions that effect large change but are not similarly guided--hence, at an extreme, blind, or unpredictable decisions;
- (c) decisions that effect only small change and are guided by adequate information and understanding; and
- (d) decisions that effect small change but are not similarly guided, being therefore subject to constant reconsideration and redirection.³¹

Figure 2 shows these types of decisions in quadrants 1, 4, 2, and 3, respectively.

Thompson and Tuden observe that there has been considerable discussion of decision making, and they mention that Mary J. Bowman, among others, discusses the issue under the differential conditions of certainty, risk, and uncertainty. Dorwin Cartwright also discusses the matter and has suggested the distinction among judgment, preference-ranking, and "actual decision-making."³²

³⁰ Charles E. Lindblom and David Braybrooke, *A Strategy of Decision* (New York: The Free Press of Glencoe, 1963), pp. 62-71.

³¹ *Ibid.*, p. 66.

³² James D. Thompson et al., *Comparative Studies in Administration* (Pittsburgh: University of Pittsburgh Press, 1959), p. 196.

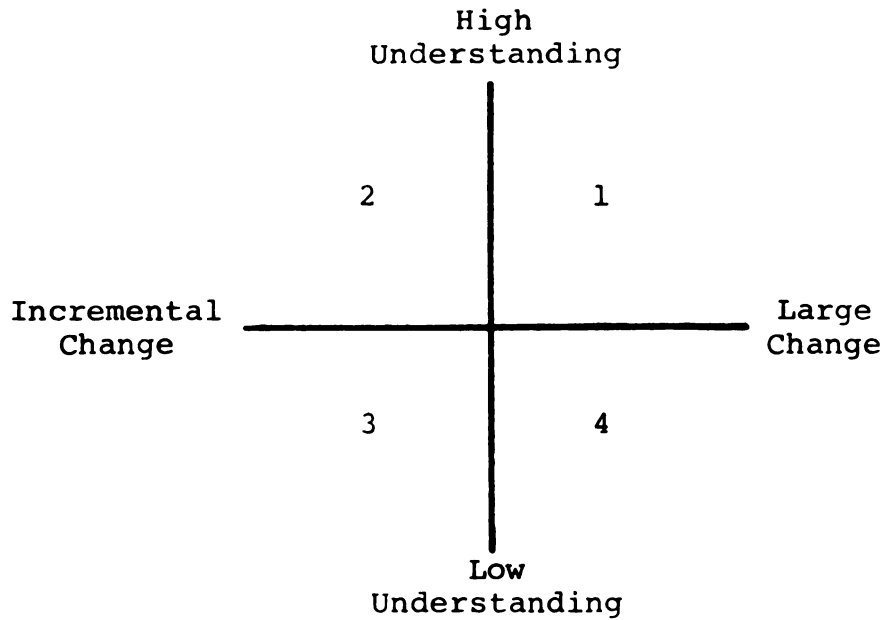


Figure 2. The types of decisions made within each quadrant,

Source: David Braybrook and Charles E. Lindblom. *A Strategy of Decision* (New York: The Free Press of Glencoe, 1963), p. 67.

Summary. The phenomenon of the decision-making process is given for all the organizations. This fact implies that the understanding of the typology of the decisions is an imperative for the life and growth of organizations. For different kinds of decisions, different treatment is required, and decisions should be suitably analyzed. Researchers have identified different decisions and different aspects of organizations as they relate to the process. Thus, although decisions are presented under different labels, depending on the circumstances under which they take place, they can be generally classified according to whether they effect changes or whether they simply allow the organization to operate at an efficient level.

Alternative Approaches to
Decision-Making

From the 1800s to the present, great changes have taken place in the approaches to organizations and work. The literature that deals with the field of administration indicates that there is a growing concern about how to approach the problem.³³ However, as Argyris points out:

³³ Alberto Guerreiro Ramos, "Models of Man and Administrative Theory," *Public Administration Review* (May-June 1972): 241.

The issue of organizational theory in public administration may be seen as part of a broader intellectual debate that has evolved in the field of organizational behavior. Scholars on both sides of the issue are in agreement that it is important to design organizations that are more effective. One side believes that this can be best accomplished through increasing rationality and descriptive research; the other on increasing the humane dimensions and therefore normative research.³⁴

Taylor, investigating the decision-making models, underscores the point. He notes that the models involve two quite different objectives:

One is essentially "normative," i.e., to construct models which would tell the decision-maker how he *should* make that class of decisions for which the model is appropriate. The other is "descriptive," i.e., to construct a model which simulates as accurately as possible the behavior of the decision-maker.³⁵

Under these labels scholars from different areas of specialization have been concentrating their efforts on the construction of models to aid in the understanding of decision-making in organizations. However, psychologists or behavioral scientists and economists have different objectives when they build models; the behavioral scientists are interested in models that account for actual

³⁴ Chris Argyris, "Some Limits of Rational Man Organizational Theory," *Public Administration Review* 33 (May-June 1973): 253.

³⁵ Donald W. Taylor, "Decision Making and Problem Solving," in *Handbook of Organizations*, ed. J. G. March (Chicago: Rand McNally and Company, 1965), p. 49.

behavior in the decision-making process while the economists are interested in both descriptive and normative models.³⁶

Although research on decision making is of great interest to psychologists or behavioral scientists, a great portion of this work has been undertaken by researchers in other areas, particularly economics.³⁷ Nevertheless, the existing models relating to this topic have not been appropriately linked with organizational models, and Thompson and Tuden observe that "a major deficiency of most decision models has been that they are economically logical models seeking to describe maximization processes."³⁸

Rational-comprehensive approach. Classical or traditional theory, postulates an "economic man" who in the course of being "economic" is also "rational."³⁹ An economic man, says Edwards, has three properties: (a) He is completely informed; (b) He is infinitely sensitive; and (c) He is rational.⁴⁰

The concept of rationality is thus the crucial factor of the economic man theory, and to be rational the

³⁶ Ibid., pp. 50-51.

³⁷ Ibid., p. 50.

³⁸ Thompson, p. 195.

³⁹ Herbert A. Simon, "A Behavioral Model of Rational Choice," *Quarterly Journal of Economics* 69 (February 1955): 99.

⁴⁰ Ward Edwards, "The Theory of Decision Making," *Psychological Bulletin* 51 (July 1954): 381.

economic man needs two things, as Edward's points out: "He can weakly order the states into which he can get and he makes his choices so as to maximize something."⁴¹

The "economic man" theory has been questioned and even economists have been distrustful of the model. The doubts refer to whether it provides a suitable base upon which to erect a theory, be it a normative or a descriptive theory.⁴²

Simon, who in Taylor's view has been the outstanding critic of both classic and modern economic theories of decisions as descriptive of decision-making in organizations,⁴³ notes that "traditional economic man, however attractive he is to the economic theorist, has little or no place in the theory of organization."⁴⁴

Rationalistic models present many concepts regarding how decisions are and ought to be made; and the requirements of these models have often been discussed. In Etzioni's words:

⁴¹ Ibid.

⁴² Simon, p. 99.

⁴³ Taylor, p. 59.

⁴⁴ Herbert A. Simon, Models of Man (New York: John Wiley and Sons, Inc., 1957), p. 198.

An actor becomes aware of a problem, posits a goal, carefully weighs alternative means, and chooses among them according to his estimates of their respective merit, with reference to the state of affairs he prefers.⁴⁵

Simon, making more explicit the requirements of the models of rational behavior, observes that they have some or all of the following elements:

1. A set of *behavior alternatives* (alternatives of choice or decision). In a mathematical model, these can be represented by a point set, A.
2. The subset of *behavior alternatives that the organism "considers" or "perceives."* That is, the organism may make its choice within a set of alternatives more limited than the whole range objectively available to it.
3. *The possible future states of affairs, or outcomes of choice, represented by a point set, S.*
4. A "*pay-off*" function, representing the "value" of "*utility*" placed by the organism upon each of the possible outcomes of choice.
5. *Information as to which outcomes in S will actually occur if a particular alternative, a, in A (or in A) is chosen.*
6. *Information as to the probability that a particular outcome will ensue if a particular behavior alternative is chosen.*⁴⁶

Criticisms regarding the limitations of the rationalistic approach in the analysis of the phenomena

⁴⁵ Amitai Etzioni, "Mixed-Scanning: A 'Third' Approach," *Public Administration Review* 27 (December 1967): 385.

⁴⁶ Simon, "A Behavioral Model of Rational Choice," p. 102.

of the decision-making process have been widespread among scholars, and those who recognize these limitations have suggested several corrections or partial alternatives.

In this regard March and Simon point out that

most human decision making, whether individual or organizational, is concerned with the discovery and selection of satisfying alternatives; only in exceptional cases is it concerned with the discovery and selection of optimal alternatives.⁴⁷

Braybrooke and Lindblom criticize the rational theory because of the requirements of the model and on the grounds of man's limited problem-solving capacities.⁴⁸

Information about consequences required by the rationalist model is beyond human capacities even if knowledge-technology is available, especially computers; thus, Etzioni points out that "decision-makers have neither the assets nor the time to collect the information required for rational choice."⁴⁹

Knowledge technology, mainly computers, is of great help in meeting the requirements of the rational model; however the capacities of the decision-makers should also be taken into consideration, as Etzioni points out:

⁴⁷ James G. March and Herbert A. Simon, *Organizations* (New York: John Wiley and Sons, Inc., 1958), p. 141.

⁴⁸ Charles A. Lindblom and David Braybrooke, *A Strategy of Decision* (New York: The Free Press of Glencoe, 1963), pp. 48-50.

⁴⁹ Etzioni, "Mixed-Scanning," p. 386.

While knowledge-technology, especially computers, is of some help in meeting some of these requirements, it does not allow for more than a narrowing of the gap between the requirements of the rationalistic model and the actor's capacities, even for the best equipped actors.⁵⁰

Sharples underscores this fact:

. . . it is very doubtful that it will ever be possible to be aware of all the necessary information and consequences of each alternative considered. Furthermore, even if all such information were available, its usefulness would be limited because of the bounds of rationality.⁵¹

The unrealistic principles of rationalistic models lead the decision-maker to a state of frustration in which, exhausting his resources without reaching a decision, he will remain without an effective decision-making model to guide him. This is due to the fact that decision makers in actual context face a universe of relevant consequences where the open system of variables and all consequences cannot be surveyed.⁵²

The rationalistic strategy assumes that goal-realization is achieved by the adjustment of means to a set of goals, and that one goal cannot be advanced in detriment of the others or in detriment of the needs of the actor; however, there is no guidance mechanism provided by

⁵⁰ Etzioni, *The Active Society*, p. 265.

⁵¹ Sharples, p. 57.

⁵² Etzioni, "Mixed-Scanning," p. 386.

this strategy in which the decision maker relates means and goals and realizing values.⁵³

Although various scholars have pointed to the impossibility of applying rational approaches, the number of educational administrators who seek to apply these methods of analysis as an instrument for decision-making is on the increase. These administrators are searching for efficiency and effectiveness in the educational process. As a result, problems have tended to be assessed in terms of economic measures of inputs and outputs, while factors that are not readily measured are not taken into consideration.⁵⁴ The consequences of this, as Sharples points out, "has been an emphasis on rational decision-making which favors an economic bias."⁵⁵

Though there is much to be criticized in the rationalistic approach, the virtues of the model for the field of administration have also been pointed out. As Kaplan indicates,

Few believe that it can be employed in any formal sense. It does however, provide analogies for some aspects of real problems and, if employed

⁵³ Etzioni, *The Active Society*, p. 304.

⁵⁴ Sharples, p. 55.

⁵⁵ Ibid.

with comprehension, aids insight. It forces consideration of alternatives not ordinarily considered.⁵⁶

And Dror emphasizes that "the 'rational-comprehensive' has at least the advantage of stimulating administrators to get a little outside their regular routine."⁵⁷

Incrementalist approach. Models for decision-making that are less demanding than the rationalistic one can be found in the works of Karl Popper, Gunnar Myrdal, Andrew Gunder, and others. Scholars like Aaron Wildavsky (1964), Donald T. Campbell (1960), Richard F. Fenno, Jr. (1966), and Otto Davis, M. A. H. Dempster and Aaron Wildavsky (1966) have initiated empirical studies of incrementalist approaches.⁵⁸

The incrementalists, in 1959, presented an alternative model--the science of "muddling through." It assumes much less command over the environment, in contrast to the rationalistic approach, which tends to posit a high degree of control over the decision-making situation by the decision-maker.⁵⁹ According to Etzioni, Charles E. Lindblom

⁵⁶ Morton A. Kaplan, "A Review of a Strategy of Decision Making: Policy Evaluation as a Social Process," *The Annals of American Academy of Political and Social Science* 352 (March 1964): 190.

⁵⁷ Yehezkel Dror, "Muddling Through--'Science' or Inertia?" *Public Administration Review* 24 (1964): 155.

⁵⁸ Etzioni, *The Active Society*, p. 268.

⁵⁹ Etzioni, "Mixed-Scanning," p. 385.

should be credited for "the fullest and most recent presentation of the 'muddling through' approach."⁶⁰

Karl Popper provides the philosophical support for this approach since, in Etzioni's view,

he argued for piecemeal reforms rather than radical transformations, for attempting to avoid "evil" instead of actively seeking to introduce "good."⁶¹

Lindblom's method supports a justification of decision-making by "muddling through"--that is, "through incremental change aimed at arriving at agreed-upon policies which are closely based on past experience."⁶² As it is presented, the method adequately fits the the administrators' behavior pattern and gives their experience a scientific air.⁶³

Administrators, when responsible for policy formulation, approach styles of decision-making that do not follow the canons of the rational policy formulation.⁶⁴ However, the literature that deals with decision-making

⁶⁰ Etzioni, *The Active Society*, p. 270.

⁶¹ Ibid., p. 268.

⁶² Dror, p. 153.

⁶³ Ibid.

⁶⁴ Charles E. Lindblom, "The Science of 'Muddling Through,'" in *Readings in Managerial Psychology*, ed. Harold J. Leavitt and Louis A. Pondy (Chicago: University of Chicago Press, 1964), pp. 92-95.

in the areas of policy formulation, planning, and public administration, refers to the rational approach as a formal way of reaching effective decisions. With this the case, administrators are left in a critical position to practice what a minority of researchers formalize.⁶⁵

"Muddling through," as described by Lindblom, is a method of successive limited comparisons. This is in contrast with the rational approach, which he calls the "rational-comprehensive" method. He characterizes the former as "branch method" and the latter as "root method."⁶⁶

According to Lindblom the characteristics of the two methods, expressed in the simplest terms, are as follows:

⁶⁵ Ibid., p. 94.

⁶⁶ Ibid., p. 95.

<u>Rational-Comprehensive</u> (Root)	<u>Successive Limited Comparisons</u> (Branch)
1a. Clarification of values or objectives distinct from and usually prerequisite to empirical analysis of alternative policies.	1b. Selection of values, goals and empirical analysis of the needed action are not distinct from one another but are closely intertwined.
2a. Policy-formulation is therefore approached through means-end analysis: First the ends are isolated, then the means to achieve them are sought.	2b. Since means and ends are not distinct, means-end analysis is often inappropriate or limited.
3a. The test of a "good" policy is that it can be shown to be the most appropriate means to desired ends.	3b. The test of a "good" policy is typically that various analysts find themselves directly agreeing on a policy (without their agreeing that it is the most appropriate means to an agreed objective).
4a. Analysis is comprehensive: every important relevant factor is taken into account.	4b. Analysis is drastically limited: <ul style="list-style-type: none"> • Important possible outcomes are neglected. • Important alternative potential policies are neglected. • Important affected values are neglected.
5a. Theory is often heavily relied upon.	5b. A succession of comparisons greatly reduces or eliminates reliance on theory. ⁶⁷

The characteristics of the method of "successive limited comparisons" imply a series of suppositions that reveal how most administrators handle complex questions-- that is, when faced with the problem of values, they choose the policy and the objectives simultaneously. Only secondly

⁶⁷ Ibid.

do they focus attention on marginal and incremental values. In actual situations, means and ends are chosen simultaneously. Agreement on policy itself is the only test of "good" policy. Simplification is achieved only by managerial adjustment to policies presently in effect and by the practice of ignoring values. Comparisons follow a chronological succession, and policy "is made and remade endlessly."⁶⁸

A comparison between the two models, the "rational comprehensive" and "muddling through," allows one to observe that the latter is "more close to reality, more sophisticated in theory, and more adjusted to human nature."⁶⁹ But Dror in his article "Muddling Through-- 'Science' or Inertia?" criticizes the validity of Lindblom's thesis and suggests the need for a critical examination of the method in terms of two important aspects: "the incremental nature of the desired change in policy, and agreement on policy as the criterion of its quality."⁷⁰

Dror stresses the limitations of the method of "successive limited comparisons," and he suggests that

⁶⁸ Ibid., pp. 96-106.

⁶⁹ Dror, p. 153.

⁷⁰ Ibid., p. 154.

unless the following three essential conditions are met, the method is not adequate for policy making:

- (1) The results of present policies must be in the main satisfactory (to the policy makers and the social strata on which they depend) so that marginal changes are sufficient for achieving an acceptable rate of improvements in policy results;
- (2) there must be a high degree of continuity in the nature of the problems;
- (3) there must be a high degree of continuity in the available means for dealing with problems.⁷¹

In 1963, Lindblom's method of decision-making "the strategy of disjointed incrementalism," or "the strategy," was built--with its present degree of sophistication--on the concept of "muddling through."⁷² In Kaplan's words, this is "the strategy which considers choices at the margin, usually by the contrast of pairs of alternatives."⁷³

Etzioni pointed out that Lindblom, in his book, *The Intelligence of Democracy*, summarized the six primary requirements of the "disjointed incrementalism" as follows:

1. Rather than attempting a comprehensive survey and evaluation of all alternatives, the decision-maker focuses only on those policies which differ incrementally from existing policies.
2. Only a relatively small number of policy alternatives are considered.

⁷¹ Ibid., p. 154.

⁷² Charles E. Lindblom, "Contexts for Change and Strategy: A Reply," *Public Administration Review* 24 (1964): 157.

⁷³ Kaplan, p. 189.

3. For each policy alternative, only a restricted number of "important consequences are evaluated.
4. The problem confronting the decision-maker is continually redefined: Incrementalism allows for countless ends-means and means-ends adjustments which, in effect, make the problems more manageable.
5. Thus, there is no one decision or "right" solution but a "never-ending series of attacks" on the issues at hand through serial analysis and evaluation.
6. As such, incremental decision-making is described as remedial, geared more to the alleviation of present, concrete, social imperfections than to the promotion of future social goals.⁷⁴

The basic assumptions of this method reveal the procedures that society utilizes for most of its decisions-- and that "we do stagger through history like a drunk putting one disjointed incremental foot after another."⁷⁵ Further, because we are human beings, we are restricted in our potential for forecasting the future. Our limited capacity prevents overall optimization. Moving step by step will assure that necessary adjustments for improvements can be made by our successors.⁷⁶

On the other hand, to a certain extent, the position taken by incrementalists favors passivity in the behavior of

⁷⁴ Etzioni, "Mixed-Scanning," p. 386.

⁷⁵ K. E. Boulding, *American Sociological Review* 29 (December 1964): 931.

⁷⁶ Kenneth J. Arrow, *Political Science Quarterly* 79 (1964): 587.

the actors, because of the fact that they respond and adjust rather than transcend and transform. This type of behavior is encouraged by the assumption that it is not feasible to set a goal and to evaluate its effectiveness, nor to change the character of the decision-making situation, since in any event the assumption is that the current situation is like the previous one.⁷⁷

Essentially incrementalism gives higher value to the status quo and allows movement from this status quo through marginal steps that favor change in future discoveries. This is a theory that fosters freedom as well as limitation.⁷⁸

It should be noted that disjointed incrementalism is not suitable to all kinds of decisions or situations; rather, it is applicable for decisions which cause "small" or incremental change and which are not guided by a high level of understanding. "Large" or fundamental decisions are beyond the scope of this strategy, since they require synoptic analysis. But incremental decisions are very common.⁷⁹

⁷⁷ Etzioni, *The Active Society*, p. 305.

⁷⁸ Martin Shapiro, "Stability and Change in Judicial Decision-Making: Incrementalism or Stare Decisions," *Law in Transition Quarterly* 134 (1965): 156.

⁷⁹ Lindblom and Braybrooke, *A Strategy of Decision*, pp. 66-71.

The significance of societal decisions is, however, not strictly related to their numbers. Therefore fundamental decisions should perhaps not be categorized as exceptions; indeed, they are the base for incremental decisions.⁸⁰

"The strategy" has been further criticized as a normative model. "Disjointed incrementalism can lead step by little step to colossal disaster as well as to substantial achievement."⁸¹ Administrators are, therefore, advised to be skeptical of "the strategy" as the preferred approach to decision-making.⁸² However, Boulding argues that "the choice is not between grand synoptic theories and blind incrementalism, but dimmer-eyed and sharper-eyed incrementalism."⁸³

This decade has been characterized by great and rapid information processing; hence it seems not to be a sound judgment "to discourage larger and better jointed increments."⁸⁴

⁸⁰ Etzioni, "Mixed-Scanning," p. 387.

⁸¹ Boulding, p. 931.

⁸² Etzioni, "Mixed-Scanning," p. 387.

⁸³ Boulding, p. 931.

⁸⁴ Ibid.

The mixed-scanning approach. Mixed-scanning is a third approach to social decision-making and is presented by Etzioni. He claims that this strategy, a combination of elements of the rational-comprehensive and incrementalist approaches, minimizes the shortcomings of both in the sense that it is not as utopian as the former nor as conservative as the latter.⁸⁵ In other words, meeting the demands of the rationalistic approach is made more feasible because there is a limitation of the details which the decision-maker will need to make fundamental decisions. On the other hand, long-run alternatives are taken into consideration in the sense that decisions are evaluated by the extent that they satisfy goals.⁸⁶

Societal decision-making, says Etzioni, requires a more active approach, and to meet these requirements, two sets of mechanisms are needed:

(a) high order, fundamental policy-making processes which set basic directions, and (b) incremental processes which prepare for fundamental decisions and work them out after they have been reached.⁸⁷

⁸⁵ Etzioni, "Mixed-Scanning," p. 385.

⁸⁶ Neil E. Snortland and John E. Stanga, "Neutral Principles and Decision-Making Theory: An Alternative to Incrementalism," *The George Washington Law Review* 41 (July 1973): 1023.

⁸⁷ Etzioni, "Mixed-Scanning," p. 388.

To achieve these mechanisms, the mixed-scanning approach should be used. This entails that the decision-maker differentiate between fundamental decisions and incremental ones.⁸⁸ The differences established between these two types of decisions can be stated as follows:

Fundamental decisions are made by exploring the main alternatives the actor sees in view of his conception of his goals, but--unlike what rationalism would indicate--details and specifications are omitted so that an overview is feasible. Incremental decisions are made but within the contexts set by fundamental decisions (and fundamental reviews).⁸⁹

The decision-maker should be aware of the fact that in order to make feedback feasible and, thus, possible modification in fundamental decisions, it will be necessary to divide these decisions, during their implementation, into sequential steps; this implies that the last elements of the policy to be implemented will be the last reversible one. Whether a visible difficulty arises or not, the decision-maker should do a comprehensive scanning, along with the implementing of the decisions, for two reasons:

(a) Major danger that was not visible during earlier scanning but becomes observable now that it is closer might loom a few steps (or increments) ahead; (b) a better strategy might now be possible although it was ruled out in

⁸⁸ Etzioni, *The Active Society*, p. 283.

⁸⁹ Ibid.

earlier rounds (see if one or more of the crippling objections was removed, but also look for the new alternatives not previously examined); and (c) the goal may have been realized and therefore need no further incrementation.⁹⁰

Another set of considerations relevant for the application of the mixed-scanning approach is the structures, the environment, and the capacities of the actor. These are important elements to be considered if it is expected that the approach will be adequately used and thus produce desirable results.⁹¹

The actor cannot fully examine reality; thus, ranking values comprehensively as a base for decision-making is vital. And the position and power relations among the decision-makers often determine the strategy followed as much as do the values and information available.⁹²

The environment has a definite role to play in the application of the mixed-scanning approach. The approach is most appropriate in more stable situations, when the environment is more malleable. When conditions are changing rapidly, it seems to be less adequate.⁹³

⁹⁰ Snortland and Stanga, p. 1025.

⁹¹ Etzioni, "Mixed-Scanning," p. 391.

⁹² Etzioni, *The Active Society*, p. 391.

⁹³ *Ibid.*

The mixed-scanning approach requires from the actor the capability of mobilizing the power to implement his decisions. Thus, the effectiveness of the decision-making process is directly related to the amount of scanning the actor can undertake, which in turn depends on his capacity of control.⁹⁴

As for the evaluation of the decision-making process, the incrementalists do not see that it is feasible to evaluate the process to determine its effectiveness; however, evaluation is thought feasible in the mixed-scanning approach, as Snortland and Stanga point out:

Incrementalists deny the possibility of evaluating decisions except in terms of the degree to which they subjectively satisfy decision-makers. Mixed-scanning [advocates], on the other hand [suggest] that the decision-maker and the observer can scale and summarize values, and can thus, evaluate decisions objectively. The decision-maker can give at least an ordinal ranking to values.⁹⁵

Although mixed-scanning proponents expect that decision-makers will be able to rank values in an informal scale, Snortland and Stanga contend that "they do not provide a set of values or goals nor does [mixed-scanning] provide an elaborate method of ranking them."⁹⁶

⁹⁴ Ibid.

⁹⁵ Snortland and Stanga, p. 1023.

⁹⁶ Ibid.

The decision-maker in the mixed-scanning approach is required to understand the implications of the choices. This is the basic difference between incrementalism and mixed-scanning. According to the latter approach, the decision-maker can foresee the consequences of his decisions; hence, he will be able to justify and explain them.⁹⁷

Snortland and Stanga have summarized the major elements of mixed-scanning as follows:

1. Fundamental decisions are the most important; they are made at critical turning points and define long-term policy. Fundamental decisions determine the context of subsequent incremental decisions.
2. Fundamental decisions are often anticipated by a series of incremental decisions.
3. Fundamental decisions do not always specify all particulars of a policy and often are implemented incrementally.
4. A preliminary ranking of values can be made for many decisions. Many decisions may therefore be evaluated in terms of goal achievement.
5. A periodic review of fundamental decisions should be conducted. Such review may be made more readily because fundamental decisions are implemented incrementally.
6. Higher level decision-makers should be concerned with fundamental decisions; lower-level decision-makers should be concerned with a bit or incremental decisions. This procedure enhances the ability of higher level decision-makers to make fundamental decisions and to conduct comprehensive reviews.

⁹⁷ Ibid., p. 1030.

7. Scanning is flexible because it can be performed at many levels. It can focus on general or on more specialized policy problems. There are multiple levels of scanning, and the appropriate level is determined by the potential "cost" of missing an important opportunity, by the cost of additional scanning, and by the amount of time it would require.⁹⁸

These elements as they are combined seem to meet the demands of an effective strategy of decision-making. The reason for this is that the societal context in which decisions are made and the capacities of control of the actors who work with the decisions are *sine qua non* conditions for an effective strategy, and both conditions are considered by this approach.⁹⁹

Mixed-scanning as an approach for a more active society has been lauded by Etzioni on the grounds that it grants more possibility of the accomplishment of goals than do rationalistic or incremental approaches. Further, the combination of fundamental decisions with incremental ones favors probing and the evaluation of the decision-making process.¹⁰⁰ Dror, too, has raised a point that administrators should bear in mind:

⁹⁸ Ibid., pp. 1025-1026.

⁹⁹ Etzioni, *The Active Society*, p. 293.

¹⁰⁰ Ibid., p. 305.

The possibilities for constructing a mixed optimum model of policy making, superior to both "muddling through" and "rational comprehensive" ones . . . [require] attention, especially because of the neglect of such a possibility in the professional literature.¹⁰¹

Summary. Decision-making includes an element of choice. It is the most deliberate and voluntaristic aspect of social conduct.¹⁰² Hence, those who are in a position to make decisions must be concerned with and be aware of the different conceptions of the decision-making process. The approaches described give different weights to the conscious choice of decision-makers. The "rational-comprehensive" approach posits a high degree of control over the decision-making situation by the decision-maker. The incrementalist approach assumes much less command over the environment. Finally, the "third" approach, mixed-scanning, combines elements of both the rational-comprehensive and incremental approaches, and by so doing minimizes the utopianism of the former and the conservatism of the latter.

¹⁰¹ Dror, p. 154.

¹⁰² Etzioni, "Mixed-Scanning," p. 385.

Empirical Study of Decision-Making

In this part of the review only one study is presented. Although it does not relate directly to the investigation, it does have indirect and important bearing on the subject.

In 1973, Adams, Kellogg and Schroeder, in an exploratory study of decision-making and information systems in colleges, describe the decision-making process in the reviewing of academic programs, in the evaluation of faculty performance, and in budgeting. They also assess the use of various types of information and analytical data.

The ideas generated from this study are stated as hypotheses, thus indicating areas for further study. The hypotheses as stated by the authors are as follows:

- Hypothesis 1: The top administrators of small colleges are equal to their non-educational counterparts in terms of managerial talent and personal motivation.
- Hypothesis 2: The problems with managerial information in small colleges are related to utilization much more than to availability.
- Hypothesis 3: Extensive or sophisticated planning processes are unwanted and inappropriate for institutional management in small colleges.
- Hypothesis 4: In almost all areas of small college management, the issue of evaluation is an unmeasured problem causing considerable concern.

- Hypothesis 5: While they frequently participate in the decision-making process, faculty and students have little or no influence on decision-making.
- Hypothesis 6: Changes in management processes and structure can lead to significantly improved decision-making.¹⁰³

Finally, the authors present what they call impressions, rather than conclusions, about important aspects of the management systems of the ten small colleges.

They are stated as follows:

1. Planning processes are limited in the colleges surveyed because they are viewed as too costly for the benefit they provide.
2. Evaluation techniques and processes are greatly needed. Significant work both in research and application should be undertaken.
3. Considerable information is currently available or is readily available, but most of it is not used for managerial purposes. This reflects a need both for a better data base and better means of access. The authors do not suggest a free hand to systems specialists in this endeavor. As indicated in the paper above, efforts at sophisticated systems often miss the mark.
4. There is a pressing need for research in developing methods for improving college management systems as a whole rather than an ad hoc approach to individual problems. The need for the broad approach that results in systems tailored to each institution may not be unique to education,

¹⁰³ C. R. Adams, T. E. Kellogg, and R. G. Schroeder, "Current and Desired Status of Information, Analysis, and Decision Processes in a Sample of Small Colleges," *Report of a Research Project Sponsored by the Ford Foundation* (Minneapolis: University of Minnesota, 1973), pp. 28-31.

the organization of educational institutions makes them very susceptible to the alternative ad hoc approach.

5. Currently there is very limited use of quantitative techniques and a low interest in such techniques except for enrollment forecasting and budget projection.¹⁰⁴

Summary

The study presented describes the decision-making process in certain scholastic areas, viz., academic program review, faculty performance evaluation, and budgeting. It shows that, based on a description of current processes, important hypotheses have been generated for further studies. Indeed, it indicates that the changes proposed will help to direct and improve the machinery of decision-making in education.

¹⁰⁴ Ibid., p. 33.

CHAPTER III

DESIGN OF THE STUDY

Introduction

This study was designed with a twofold purpose. First, the study was to describe in considerable depth and detail the dynamics of the decision-making process, as seen from a sample of recent decisions. A purpose ancillary to this was the exploration of personal and environmental factors to determine if there are basic differences between principals.

Second, the research was to focus on the extent to which the legislation mandating the decentralization of the decision-making process has actually been implemented, e.g., as reflected in autonomy at the level of the *complexos escolares* (experimental school complexes).

This chapter will describe the process by which the data were gathered and analyzed. It has the following organization: description of the sample, the instrument, the reliability of the study, procedures for data collection, research questions, and data analysis.

Description of the Sample

The study involved principals of six of the nine *complexos escolares* located in urban areas of some *municípios* in the State of Pernambuco. Each *complexo escolar* has three or four principals. Twenty-two principals were selected for the study.

In one of the *municípios* where three *complexos escolares* were selected, the population is about 1,302,953.¹ The school population of all three *complexos escolares* is 12,902. The communities in which these experimental schools are located range from some with an estimated 100 percent blue-collar population to others with an estimated 70 percent blue-collar and 30 percent white-collar workers.

The other three *municípios*, in which three other selected *complexos escolares* are located have populations ranging from approximately 300,000 to 500,000. Each of these *municípios* has only one *complexo escolar* in the public school system, and the total school population of all three is 6,704. The communities in which these schools are located vary from communities with 100 percent blue-collar workers, to communities with 100 percent white-collar

¹Governo de Pernambuco, Secretaria da Educação e Cultura, "Situação Atual Dos DERE e NSP," *Quadro 7* (Recife, 1976). (Mimeographed.)

workers, to communities with 70 percent blue-collar and 30 percent white-collar workers.

The school population of these six *complexos escolares*, in percentage of pupils enrolled, is as follows:

<u>Population</u>	<u>Percentage</u>
Above 2,000	5
1,000-1,999	33
800-999	5
600-799	23
400-599	16
200-399	--
Less than 200	18

Research Method and Instrument

The exploratory field method, with the semi-structured individual interview as the chief data-gathering technique, was used in order to eliminate threat to the interviewees and at the same time to develop good rapport to allow for sufficient probing and follow-up of responses. This technique was also to ensure that a reasonably adequate picture of the decision-making process would emerge. Since the number of schools available for the study is small, a defensible quantitative analysis could not be pursued. Not enough was known about the situation to provide an adequate basis for fixed alternative (closed) items. Therefore, it was more advisable to concentrate instead on developing a

full-blown depiction of the decision-making process in terms of the personal and environmental factors that seemed to be operative.

Borg and Gall, in referring to semistructured interview, stated:

The semistructured interview, therefore, has the advantage of being reasonably objective while still permitting a more thorough understanding of the respondents' opinions and the reasons behind them than would be possible using the mailed questionnaires. . . . It provides a desirable combination of objectivity and depth and often permits gathering valuable data that could not be successfully obtained by any other approach.²

The interview guide (Appendix B) developed by the researcher was based on an extensive review of pertinent literature for three of the approaches to the decision-making process, i.e., rational-comprehensive, incrementalist, and mixed-scanning. Other components of the instrument, chiefly related to demographic data, were adopted from a review of other instruments relevant to the topic.

The interview guide consists of two parts. In Part One there are structured items that seek information about personal-social characteristics of principals and environmental characteristics of the communities in which

²Walter R. Borg and Meredith D. Gall, *Educational Research*, 2nd ed. (New York: David Mackay Company, Inc., 1973), p. 214.

the schools of the *complexos escolares* are located. Part Two contains open-ended questions and seeks to find out the dynamics of the decision-making process in selected schools of the *complexos escolares*.

Reliability

The instrument was to be flexible and adaptable to the exploration of avenues of inquiry that could not be predictable in advance. Given this exploratory approach, no instruments of established reliability were available for use. However, an important element of reliability in this type of exploratory study was introduced by the practice of systematically cross-checking reports of all critical phenomena. One type of cross-checking was utilized, namely, by means of different questions, each interviewee was questioned more than once about important events.

Procedures for Collecting Data

Specialists of the "Diretoria Executiva" of the Secretariat of Education and Culture selected the six *complexos escolares* that exhibited the greatest possible diversity in the following personal-social and environmental variables:

I. Personal-Social

Socio-economic status
 Professional affiliation in educational societies
 Number of years of residence in the community
 Expectations from the experimental program
 Attitude toward the experimental program
 Motivation for participation in the experimental program
 Communication flow within the team of principals
 In-service training in education in general
 In-service training in educational administration
 Age
 Years of experience as a principal
 In general
 In the experimental program
 Years of teaching experience
 In general
 In the experimental program
 Formal training

II. Environmental

Character of local neighborhood
 Proximity of the school to the offices of the Secretariat of Education and Culture
 Proximity of the school to the "Departamentos Regionais de Educação" and/or the "Nucleos de Supervisão Pedagógica"
 Proximity of the principal's residence to the school
 Frequency of the staff turnover.

The selection of the *complexos escolares* was based on the knowledge and experience of the specialists of DEXE.

Originally it was intended that the decisions to be examined in detail would be identified by asking each of the principals in each selected *complexo escolar* to identify the most important decisions made by him/her on the behalf of the *complexo escolar* as a whole during the current school year. However, specialists of DEXE made it clear to the researcher, that the principals in these *complexos escolares* were not working as a team. To put the matter another way,

the experimental schools are not functioning as proposed in the paradigm. This being the case the mode of questioning each principal was reformulated. Thus, he/she was asked instead to identify "the most important decisions made by him/her on behalf of the school he/she is principal of" during the current school year (1976).

Each principal to be interviewed was shown the following list, to help him/her remember specifics about important decisions made.

1. Curricula
Courses
Methods teachers should use
Textbooks
2. Personnel
Evaluation
Hiring
Placement
3. Finance
Budgeting
Allocation to specific areas
4. Students
Evaluation
Promotion
5. Community
Parents and relatives.

After the principals were informed that they had been selected to participate in the study, arrangements were made for the researcher to administer the semistructured individual interview to each of the 22 principals at the most convenient time during scheduled school hours, between October 20, 1976 and November 26, 1976.

Those interviewed were assured that all their statements would be kept confidential.

Tape recording was the method employed for recording the interviews. The following excerpt from Borg and Gall points to the advantages of this method.

The use of tape recorders has several advantages in recording interview data for research. Most important perhaps is that it reduces the tendency of the interviewer to make an unconscious selection of data favoring his biases. The tape recorder data can be played back more than once and can be studied much more thoroughly than would be the case if the data were limited to notes taken during the interview.³

At the beginning of the interview an effort was made to develop a good rapport, and throughout the interview it was essential to maintain the freedom to capitalize on unanticipated issues.

It was intended that in each *complejo escolar* decisions would be selected from the aforementioned list of school concerns according to the frequency with which they were mentioned by the interviewees. A secondary criterion was that there be, to the extent possible, a reasonable diversity of decision areas.

Since these *complejos escolares* are not working according to the model proposed by the Secretariat of Education and Culture, the researcher was concerned that

³Ibid., p. 216.

each school might be making entirely different decisions. However, among the decisions mentioned by those interviewed it did prove possible to find similar ones.

It was also possible to distinguish decisions by the frequency with which they appeared among those mentioned by each principal. But this was true for only five of the six *complexos escolares*. In the other *complexo escolar* agreement was found in only two areas of the aforementioned school concerns. Thus, the researcher was led to examine more closely this apparent exception.

Research Questions

The following four research questions were formulated:

Research Question 1:

Which specific decision-making model do principals consider during the decision-making process?

Research Question 2:

In which areas of school concerns do principals have authority to make decisions; and what is the participation of the staff in the decision-making process?

Research Question 3:

Is there any kind of information or advice network giving input to the principals in the decision-making process for the specific areas of school concerns?

Research Question 4:

Are there basic differences between principals with respect to certain selected personal, social, and environmental variables?

Analysis of the Data

This study was not intended to test any hypothesis; instead, it was to analyze in an exploratory way the decision-making process in a selected sample of public elementary schools (*Primeiro Grau*). Indeed, the sample was small and, therefore, a quantitative analysis was not appropriate.

Due to a faulty tape recording, the data from one principal were not included in the data analysis. Also, three more principals selected for the study did not meet the criteria established by the researcher for the selection of decisions to be analyzed. Many of their decisions were too dissimilar from the other principals' for the process of their decision-making to be compared. The data from these three principals were not included in the major data analysis but were treated separately.

The first and second research questions were analyzed by calculating percentages of the responses given by the principals in each selected decision of nine of the eleven specific areas of school concerns.

Research question three was analyzed by calculating percentages of the responses given by the principals in each selected decision of of the eleven specific areas of school concerns. In the case of two open-ended questions--

about advice networks--actual numbers were summarized and used.

Research question four was analyzed by calculating percentages from the responses given by the principals about demographic data. For one demographic characteristic--professional activities--actual numbers were summarized and used.

The data gathered from the three principals excluded from the major analysis were analyzed separately as representing a deviant *complexo escolar*.

The deviant *complexo escolar* was analyzed by comparing it with the other five *complexos escolares*. This analysis consisted of calculating percentages from demographic data given by the principals. For one demographic characteristic, actual numbers were summarized and used.

First, there was made an identification and delineation of consistent, habitual patterns or cycles of behavior that appeared in the decision-making process of the principal of each school of the *complexos escolares*. In short, the basic mode of data analysis was a persistent search for regularities in the process.

Secondly, a number of theoretical concepts from the literature--from the rational-comprehensive approach, the incrementalist approach, and the mixed-scanning approach--were compared with the data.

Summary

The principals of six of the nine *complexos escolares* of the State of Pernambuco were involved in this study. Initially 22 principals were interviewed; however, during the analysis of the data, it was recognized that three principals did not meet the criteria established by the researcher; hence they were treated as a deviant case. A set of data from another principal could not be used because of faulty tape recording. Thus the responses of four principals were excluded from the major analysis.

The semistructured individual interview was used to collect the data. The interview guide consisted of two parts: Part One, with structured items, sought information pertinent to personal-social characteristics of principals and environmental characteristics of the communities in which the schools were located. Part Two contained open-ended questions and sought to find out the dynamics of the decision-making process in the *complexos escolares*.

The semistructured individual interview was administered to the 22 principals during scheduled school hours. Tape recording was the method employed. The methodology used in this exploratory study has been described in this chapter. Descriptive statistics were used to analyze the research questions.

CHAPTER IV

PRESENTATION OF THE FINDINGS

Introduction

The description of the decision-making process in the following five general areas, vis-à-vis curricula, personnel, finance, students, and community, are presented in this chapter.

In the case of research question 1, the findings for each of the aforementioned areas are presented separately, in different sections in Tables 1 through 13. In Table 14 and Table 15 is presented information that pertains to priorities for the school year 1976 and the utilization of specific models or approaches to the decision-making process.

For research question 2, the findings for each area of school concerns are presented separately also, and in different sections in Tables 16 through 21.

For research question 3, the findings are presented in the following ways:

1. Each area of school concerns is discussed with respect to the involvement of professionals and nonprofessionals in the decision-making process (see Table 22).

2. The involvement of professionals and non-professionals in upper and/or lower echelons of the educational hierarchy in the decision-making process is shown (see Tables 23 through 26).

With respect to research question 4, the data have to do with personal-social and environmental variables, and the findings are presented in Tables 27 through 35. The sections for all four research questions are not presented in order of importance but in the manner most helpful in the identification of the characteristics of the decision-making process. An apparent deviant case is described also in Tables 36 through 46.

Findings

Research Question 1:

Which specific decision-making model do principals consider during the decision-making process?

The data indicate that all the decisions selected in the five general areas of school concerns are somewhat different from each other. They are decisions which seem to enhance the efficient management of the schools. Thus, they are routine decisions, since there is no apparent change in the character of the organization, i.e., the school. For each general area, the description of the decision-making process is presented in 11 sections and in two tables which are used as a cross-check.

Curricula

The salient points related to *curricula* are discussed in the following sections.

1. Consideration of alternatives. Table 1 (see Appendix C) shows that a small number of principals consider alternatives in this area. The following excerpts (in italics) from the interviews exemplify the alternatives considered:

As one alternative to the decision that was made, we had one in which we were supposed to decide the method that teachers should use.

As an alternative to the decision that was made, we had one in which we determined uniformity of method for the first-grade teachers.

The data of Table 2 (see Appendix C) are a cross-checking of the consideration of alternatives for the decisions made in this area. A comparison between Table 1 and Table 2 indicates that there is a consistency among the answers of the principals.

2. Importance of the decision. Table 3 (see Appendix C) shows that in the area of *curricula--methods*, about one-half of the principals say that they consider these decisions important ones. The following quotations from the interviews illustrate their reasons:

The teachers know their students; they are the most appropriate individuals to decide which method suits their needs better; this fact will allow them to create conditions for improvement of the academic achievement level of the students.

I think that teachers can work better with the method that they understand and are able to apply in a knowledgeable way.

Students will probably raise their level of academic achievement due to the experiences teachers have with the method chosen.

Decisions related to *curricula--textbooks* the majority of the principals report as important. The following excerpts from the interviews show the reasons for considering them important:

. . . because the decision benefitted the students who are in need, economically speaking, and those who attend public schools need help from the State Government.

. . . because it benefitted the students who are in need, economically speaking. The books are lent to the students who pay a nominal price.

. . . because it helps the students who are in need, economically speaking. Also, the opportunity has been given to the teachers to analyze the books that are going to be used by the students in the school year of 1977. The plan for 1977 is that the books will be sent to schools at the beginning of the year.

3. Consideration of possible negative consequences.

Table 4 (see Appendix C) shows that with respect to *curricula--methods*, over one-half of the principals report that they consider possible negative consequences when they make a decision. The following excerpts from the interviews illustrate:

There is always a possibility of being unsuccessful when the decision is about methodology because it deals with people, and in general we cannot predict a person's behavior with any degree of accuracy.

I considered the possibility of the negative consequences of this decision about methods since I made the decision alone and I did not know all the teachers well. In fact, it was the beginning of the school year.

The data of Table 5 (see Appendix C) are a cross-checking of the consideration of possible negative consequences for the decisions made in the area of *curricula--methods*. A comparison of Table 4 and Table 5 demonstrates that there is consistency among the responses of the principals.

4. Reasons for considering the decision a success.

Table 6 (see Appendix C) shows that regarding *curricula--methods*, the majority of the principals report that their decision has been successful. The following citations from the interviews illustrate why they think so:

The achievement level of the students has been raised.

In the second semester of this school year we could discern a higher level of achievement among the students, as well as better performance from the teachers in classroom situations.

Through observation it can be noted that teachers are using different techniques in class situations, and the students are showing a higher achievement level.

Concerning *curricula--textbooks*, a small number of the principals report that the decision has been successful.

The students cannot afford to have textbooks for their class activities, so the granting of books was helpful.

It provides textbooks for the students; however, the books do not come at the beginning of the school year.

5. The emergency character of the decision and the difficulties encountered. Table 7 (see Appendix C) shows that a very small percentage of the principals report that the decision regarding *curricula--methods* was made as a result of teacher-related emergency.

6. The identification of the problems in the process of making decisions. Table 8 (see Appendix C) shows that regarding *curricula--methods*, all of the principals report that the decision made was a response to clearly identified problems; in the identification of problems, the principals are divided into two groups. Over one-half report that the problem is teacher-related, and the remainder indicate that the problem is student-related. The following excerpts illustrate:

The methods that some of our teachers were using to help the students in their learning process were not appropriate.

There is a lack of preparation of some of our teachers. Thus the application of new teaching techniques becomes a serious problem.

7. Consideration of relevant factors in decision-making. Table 9 (see Appendix C) shows that for the decision in the area of *curricula--methods*, a large number of principals report that direct outcomes of the decision are the factors taken into account, and a very small number report that values and beliefs are the factors taken into consideration. The following excerpt illustrates:

I consider the indirect benefit of the educational process to be valuable. Thus, the accomplishment of those objectives will help the students to become better members of society.

8. Criteria used for judging a decision good.

Table 10 (see Appendix C) shows that with respect to *curricula--methods*, all of the principals report that the decision made is considered a good one. With regard to the criteria used in arriving at the decision, these principals are divided into two groups. One-third indicate that agreement on objectives is the criterion used, while two-thirds report that the criterion is the anticipated results of the decision. This division is underscored in the following quotations:

The decision relating to methods was considered a good one because the teachers, the pedagogical coordinator, and myself were all in agreement on the objectives of the decision.

The decision in terms of methods was considered a good one, because the staff anticipated good results from the decision which was made.

The teachers and myself considered the decision related to methods to be a good one because of the anticipated results of the decision.

9. Determining the objectives of the decision.

Table 11 (see Appendix C) shows that all the principals report that in the area of *curricula--methods*, they define the objectives of the decision before the formulation and examination of the decision.

10. Criteria used for analyzing the validity of the decision. Table 12 (see Appendix C) shows the

criteria which principals use in analyzing decisions to determine whether they are good decisions before implementing them. In the area of *curricula--methods*, the majority of the principals report that the criterion they use is the number of persons preferring the decision.

I could anticipate the positive results due to the involvement of the teachers and their total preference for this decision.

It is important to note that a small number of principals report that their standard of measure for considering a decision a good one is their personal conviction.

Because I personally believe that teachers perform better when they know and like what they are doing.

11. Criteria used for determining whether a decision would have the desired results. Table 13 (see Appendix C) indicates that with respect to *curricula--methods*, a very small number of the principals report that the criteria they use to determine whether the decision would have the desired result are the benefits the students would receive. Over one-half report that the benefits that would accrue to the teachers are their criteria. On the other hand, a small number report that their criteria are staff benefits, and a very small number report that past experience is their standard of measure. The following excerpt from the interviews underscores the statement about benefits to teachers:

. . . because it was an old desire of our teachers to choose and apply the methods they felt confident with.

Personnel

The issues concerning personnel are highlighted in this section.

1. Consideration of alternatives. Table 1 (see Appendix C) shows that personnel evaluation has a small percentage of affirmative answers among all the categories; the following excerpts taken from the interviews exemplify the alternatives with respect to personnel:

. . . that the teachers would prepare written self-evaluation.

. . . that the teachers would be evaluated by observation, and this process would be the responsibility of the pedagogical coordinator.

The principal alone would be responsible for the teacher's evaluation.

The teacher alone would be responsible for his own evaluation.

The data presented in Table 2 (see Appendix C) are a cross-checking of the consideration of alternatives in the decision made in the personnel area. Comparison of Table 1 and Table 2 indicates consistency among the principals.

2. Importance of the decision. Table 3 (see Appendix C) indicates that according to a majority of the respondents, the decision made in this area of *personnel--evaluation* is important. The following excerpts illustrate why principals are of this opinion:

The teacher is mature enough and thus capable of making an appropriate evaluation of his/her work.

I will not be alone in the judgment of the teachers. I will base my evaluation on information given by them.

When we make a self-evaluation, we become aware of our strong and weak points. When we are aware that someone is observing our behavior, we try to give a better performance.

Over one-half the principals report that the decision with respect to *personnel--hiring* is important, and excerpts from the interviews show what principals indicate as reasons:

There was a need to hire teachers for the areas of general education in this school.

The students were waiting for the teachers; therefore, the schedule for the school year was disrupted.

It was an answer to the need of the school to hire teachers for those specific areas.

It was really important because if the teachers were not hired, the students would still be without teachers.

3. Consideration of possible negative consequences.

One-half of the principals report that they consider possible negative consequences.

I considered possible negative consequences in the decision related to personnel evaluation because it was going to depend on the judgment of the pedagogical coordinators, and since they are human beings, they can fail.

I thought about possible negative consequences when this decision related to personnel evaluation was made. Not everyone is able to make a sound self-evaluation. Sometimes it is not really a person's fault; the problem is that one thinks that one is doing a good job, but from the point of view of a third person, it does not look the same way.

The data of Table 5 (see Appendix C) are a cross-checking of the consideration of possible negative

consequences for the decision made in the personnel area. Comparison of Table 4 and Table 5 shows the principals consistent.

4. Reasons for considering the decision a success.

Table 6 (see Appendix C) indicates that in the area of *personnel--evaluation*, the majority of the principals report the decision successful.

The teachers like to participate in the schools' activities; thus, at the end of each semester they like to have the opportunity to make their own self-evaluation and also to evaluate the work of the school.

Teachers have the opportunity to discuss their professional problems and difficulties; thus, an attempt has been made to solve them, so far as is possible, immediately.

In the process of doing their self-evaluation, the teachers have become aware of the positive and negative aspects of their performance and are trying to overcome the negative aspects.

It is helping the school to solve the problems related to teachers without creating animosity among them.

The decision related to *personnel--hiring* a majority of the principals report as successful.

Yes, because the students who were without teachers now have teachers. As a consequence, the students are making better progress.

Yes, because all of the teachers needed for this school, but one, were hired by SEC.

Yes, because SEC hired the teachers immediately.

5. The emergency character of the decision and the difficulties encountered. All the principals report that there is no emergency about the decision made in this area of *personnel--evaluation* (see Table 7, Appendix C).

6. The identification of the problems in the process of making decisions. Table 8 (see Appendix C) shows that with respect to *personnel--evaluation*, almost all of the principals indicate that the decision is a response to clearly identified problems. In this area the identified problem is teacher-related. The following excerpts from the interviews underscore this point:

The teachers were always in disagreement with our way of evaluating them.

The teachers and myself were always in disagreement and this fact was causing an uncomfortable working environment.

Teachers were not involved in their own evaluation process.

Past experience showed the need to evaluate the teachers through the process of self-evaluation which is followed by a dialogue with them.

7. Consideration of relevant factors in the decision-making process. Table 9 (see Appendix C) indicates that in relation to *personnel--evaluation*, the majority of the principals report outcomes of the decision as the factors taken into consideration, and a small number report that they take into consideration values and beliefs.

8. Criteria used for judging a decision good. Table 10 (see Appendix C) indicates that in the area of *personnel--evaluation*, the majority of the principals report that the decision is a good one. Of the majority group, a small number say that the criterion used is agreement on objectives, a very small number report that the standard

used is agreement on the decision per se, while most of the principals report that the anticipated results of the decision is their criterion for considering the decision a good one.

The decision related to personnel evaluation was considered a good one because the staff and the supervisor of the DERE were in agreement on the objectives of the decision.

The decision related to personnel evaluation was considered a good one because the pedagogical coordinator and myself were in agreement on the decision as such.

The teachers and myself considered the decision related to personnel evaluation a good one because of the anticipated results of the decision.

9. Determining the objectives of the decision.

Table 11 (see Appendix C) shows that all the principals report that they define the objectives of the decision about *personnel--evaluation* before the formulation and examination of the decision.

10. Criteria used for analyzing the validity of the decision. Table 12 (see Appendix C) shows that in *personnel--evaluation*, a small number of the principals report that the standard they use to judge the decision is the number of persons preferring the decision.

We considered the decision a good one because the majority of the staff members preferred the decision.

On the other hand, one-half report that they use their own personal conviction.

On the basis of past experience, I determined that the decision would be a good one.

11. Criteria used for determining whether a decision would have the desired result. Table 13 (see Appendix C) shows that in the area of *personnel--evaluation*, a majority of the principals report that the criteria they use to judge whether the decision would have the desired result are the benefits teachers alone receive. The following excerpt from the interviews emphasizes this point:

It would give the teachers an opportunity for self-evaluation and also an opportunity of self-expression.

On the other hand, a very small number of the principals indicate that their criteria are benefits to the staff.

Finance

Pertinent information relating to finance is discussed in the following sections.

1. Consideration of alternatives. Table 1 and Table 2 (see Appendix C) show that the principals indicate that they do not consider alternatives for the decision in this area.

2. Importance of the decision. Table 3 (see Appendix C) indicates that over one-half the principals report that the decision about *finance--allocation of financial resources to specific areas* is important. The following quotations from the interviews exemplify the reasons:

It helped to fulfill the need of the students of our schools.

Our school is located in a community that has a high social and economic status, but the school population does not come from this community; therefore, the lower-class students lack good nutritious meals which the school must provide.

3. Consideration of possible negative consequences.

Table 4 (see Appendix C) indicates that a very small number of principals do consider negative consequences in the area of *finance--allocation of financial resources to specific areas*. Table 5 (see Appendix C) is a cross-checking of the consideration of possible negative consequences for the decision which is made in this area. Comparison of the two tables, i.e., Table 4 and Table 5, demonstrates that there is consistency among the answers of the principals.

4. Reasons for considering the decision a success.

Table 6 (see Appendix C) demonstrates that in *finance--allocation of financial resources to specific areas*, the majority of the principals report the decision successful.

Yes, because students are receiving benefits from this decision, i.e., the school food program is richer now.

Yes, because the students of this school lack nutritious diets. Thus, the school food program will help them to be more mentally and physically alert.

The students are the beneficiaries of the schools' nutritional program. That is a must in this community, since the students lack nutritious diets.

Yes, the students are aware of the decision and when they are in need, they say, "I did not have breakfast this morning and I would appreciate some."

5. The emergency character of the decision and the difficulties encountered. Table 7 (see Appendix C) shows that with regard to *finance--allocation of financial resources to specific areas*, one-fourth of the principals report that the decision was made as a result of an emergency, and it was related to the student affairs.

6. The identification of the problems in the process of making decisions. Table 8 (see Appendix C) indicates that in the area of *finance--allocation of financial resources to specific areas*, all of the principals report that the decision made was a response to clearly identified problems, and that the problem was related to student affairs in general. The following quotations from the interviews illustrate:

This school is located in a community where the social economic status is a mixture of middle and lower classes. Most of our students come from lower social economic status and therefore their meals must be subsidized.

The school's nutritional program was very poor; therefore, it needed to be enriched.

7. Consideration of relevant factors in the decision-making process. Table 9 (see Appendix C) shows that with respect to *finance--allocation of financial resources to specific areas*, all the principals consider outcomes as the factors considered in the decision.

8. Criteria used for judging a decision good. Table 10 (see Appendix C) shows that in the area of *finance--allocation of financial resources to specific areas*, all the principals report that they consider the decision a good one. With respect to criteria applied in deciding whether the decision is good or bad, the principals are divided into two groups. One-fourth report agreement on objectives as the criterion they use, while the remaining principals indicate that anticipated results of the decision

are their criterion. The two following quotations illustrate this division:

The decision related to allocation of financial resources to specific areas was made by the staff, and all of us considered it a good decision because all of us were in agreement on the objectives.

The decision with respect to allocation of financial resources to specific areas was made by the staff, and all of us considered it a good decision because we were in agreement on the anticipated results of the decision.

9. Determining the objectives of the decision.

Table 11 (see Appendix C) indicates that all the principals report that for the decision in the area of *finance--allocation of financial resources to specific areas*, they define the objectives of the decision before the examination and formulation of it.

10. Criteria used for analyzing the validity of the decision. Table 12 (see Appendix C) shows that with respect to *finance--allocation of financial resources to specific areas*, over one-half of the principals report that they use the number of persons preferring the decision as the criterion for judging how good the decision will be.

The majority of our staff members preferred this decision; thus, we believe that it is a good one.

Over one-third of the principals indicate that the criterion for judging the decision as good or not is their own personal conviction.

I am sure that when students are malnourished their thinking is slowed.

11. Criteria used to determine whether a decision would have the desired result. Table 13 (see Appendix C) reveals that in relation to *finance--allocation of financial resources to specific areas*, all of the principals point out that benefits to students are the criteria they use to decide whether the decision would have the desired results. The following excerpt from the interviews exemplifies this response:

We are aware of the fact that the lack of nutritious meals negatively affects the learning process of the students.

Students

With respect to the area of *students*, the findings are discussed in the following sections.

1. Consideration of alternatives. Table 1 (see Appendix C) shows that of those areas in which principals considered alternatives at all, *students--evaluation* received the smallest consideration. The following is an excerpt from the interviews which illustrates the kind of response:

. . . that the principal would determine the way to evaluate the students.

The data presented in Table 2 (see Appendix C) are a cross-checking of the consideration of alternatives in the decision made in this area. Comparison of Table 1 and Table 2 shows the respondents are consistent.

2. Importance of the decision. Table 3 (see Appendix C) shows that most of the principals report that

the decision concerning *students--evaluation* was important.

The following excerpts illustrate their reasons:

The continuous evaluation of the students helps the teachers determine if the objectives for that area have been accomplished.

Because the teachers know their students, they are able to choose the most suitable technique for evaluating the students in specific areas of the curricula.

Over one-half the principals report that the decision related to *students--promotion* is important. The following quotations highlight their reasons:

If the students are going to be promoted without being prepared for this promotion, they will not be adjusted in the next grade and thus will become frustrated.

Those students who are able to accomplish the objectives of each teaching unit will begin the next level without serious academic problems.

3. Consideration of possible negative consequences.

Table 4 (see Appendix C) indicates that *students--evaluation* is the only area where principals do not consider possible negative consequences.

With regard to *students--promotion*, a small number of the principals indicate that they do consider the possible negative consequences of the decision.

Table 5 (see Appendix C) is a cross-checking of the consideration of possible negative consequences in the decision made in this area. Comparison of Table 4 and Table 5 shows the principals consistent.

4. Reasons for considering the decision a success.

Table 6 (see Appendix C) demonstrates that with respect to

students--evaluation, a majority of the principals indicate the success of the decision. The following citations underscore this:

Yes, since the students are evaluated at the end of each unit, there is an opportunity for a remedial program in the months of June and July.

Yes, because firstly parents come to the PTA meetings to receive, among other things, the results of the evaluation of the student. Secondly, the file of the students are up-to-date. Thirdly, the students have been evaluated through better processes.

Yes, the results are good since the teachers have chosen techniques that are adequate for their students.

Yes, the teachers are utilizing a variety of techniques. Thus, students are having an opportunity to be evaluated by a variety of ways that take into account the individual differences between the students.

With *students--promotion*, over one-half of the principals say that the decision has been successful. The following excerpts illustrate:

Yes, if the students are able to achieve the pre-determined objectives for each discipline, they can enter the next level without much trouble.

Yes, only those who reached the objectives of each unit were promoted to the next one.

Yes, the students are being evaluated according to their level of academic achievement.

I believe that students should achieve the objectives of each discipline in order to be promoted.

Yes, because we can already see the results of the first semester--that is, the level of academic achievement of the students is getting higher.

Yes, the students are accepting the idea that they can be promoted only if they show a good standard of academic achievement.

Yes, because those who do not accomplish the objectives of each unit will have the opportunity to participate in the remedial program.

5. The emergency character of the decision and the difficulties encountered. Table 7 (see Appendix C) indicates that in the area of *students--evaluation*, a very small number of the principals report that the decision was a result of an emergency and, furthermore, that the difficulty was related to the students' academic achievement.

6. The identification of the problems in the process of making decisions. Table 8 (see Appendix C) demonstrates that in the area of *students--evaluation*, over one-half of the principals report that the decision was a response to clearly identified problems. They fall into three groups, viz., those who say that the problem had to do with the teachers, those who say that the problem had to do with the students, and those who are undecided about the matter. The following quotations illustrate some of their arguments:

The students were not evaluated through adequate techniques. Therefore, they were being promoted without being able to cope with the academic situation in the next grade.

The students were not being evaluated adequately; thus, it was difficult for the teachers to have a final judgment regarding who should be promoted.

Asking teachers to use evaluation techniques that were unfamiliar to them was the cause of the problem.

With respect to *students--promotion*, over one-half the principals observe that the decision is a response to

a clearly identified problem, and they note that the problem is related to the students. These points are emphasized in the following quotations:

Neither the teachers nor the students are aware of the fact that what is necessary for the promotion of a student is the accomplishment of objectives.

The students were not adjusting to the grade in which they were placed, because they could not meet the requirements of that particular grade.

Through the information of the pedagogical coordinator and based on our own observation, we realized that the students were held back in the same grade for years, because they were not being treated according to the level of their academic achievement.

7. Consideration of relevant factors in the decision-making process. Table 9 (see Appendix C) indicates that in the areas of *students--evaluation* and *students--promotion*, over one-half and almost one-half of the principals, respectively, consider outcomes as the factors considered in the decision.

I took into account the better academic achievement of the students.

8. Criteria used for judging a decision good.

With respect to *students--evaluation*, Table 10 (see Appendix C) indicates that over one-half of the principals judge that the decision has been a good one. These principals report that the criteria for making the decision are agreement on objectives, agreement on the decision as such, and anticipated results. The following excerpts from the interviews illustrate:

The decision related to the evaluation of students was considered a good one by the teachers and myself because all of us were in agreement on the objectives of the decision

The decision related to the evaluation of students was considered a good one because the staff and myself were in agreement on the anticipated results of the decision.

About *students--promotion*, over one-third of the principals report that the decision was a good one, and over one-half report that they were not responsible for the decision. They also indicate that agreement on objectives and anticipated results of the decision are the criteria.

The decision with respect to students' promotion was considered a good one because the teachers and myself were in agreement on the objectives of the decision.

The decision regarding the students' promotion was considered a good one, because the vice-principal, pedagogical coordinator, and myself were anticipating good results from the decision.

The decision about students' promotion was considered a good one because the supervisor of DERE and myself were in agreement on the anticipated results of the decision.

9. Determining the objectives of the decision.

Table 11 (see Appendix C) shows that in the areas of *students--evaluation* and *promotion*, over one-half and almost one-half of the principals, respectively, indicate that they define the objectives for the decision in these two areas before the formulation and examination of the decision.

10. Criteria used for analyzing the validity of the decision.

Table 12 (see Appendix C) shows that in relation to *students--evaluation*, over one-third of those

interviewed report that the criterion they use is the number of persons who preferred the decision.

All the staff members were in favor of the decision; thus, I considered it a good one.

With respect to *students--promotion*, a small number of the principals indicate that the number of persons preferring the decision is the criterion that they use for judging the decision's worth.

The majority of the teachers, the pedagogical coordinator, and myself preferred this decision; therefore, I determined that it was a good one.

On the other hand, a very small number report that their own personal conviction is the criterion used for determining whether the decision is a good one before its implementation.

11. Criteria used for determining whether a decision would have the desired result. Table 13 (see Appendix C) demonstrates that in the area of *students--evaluation*, almost one-fourth of the principals report that the criterion they use to ascertain whether the decision would have the desired result is the benefits to students. Almost one-half indicate that they use benefits to teachers as the criterion. Following is an excerpt from the interviews:

The teachers are the ones who know the subjects that they teach and also they have a better understanding of the students.

With respect to *students--promotion*, over one-third of the principals report that the criterion used to determine

whether the decision would have the desired result is benefits to students. The following excerpt from the interviews illustrates:

If the students accomplish the required objectives for each teaching unit, they will have more success in the following level.

A very small number of the principals report that the benefits teachers alone receive are the criteria used.

Community

Concerning this issue, the highlights are discussed in the following sections.

1. Consideration of alternatives. Table 1 and Table 2 (see Appendix C) show that in making decisions about the community, the principals do not consider alternatives for the decision they make.

2. Importance of the decision. Table 3 (see Appendix C) indicates that over one-half the principals report that the decision relating to *community--parents and relatives* is important. The following quotations illustrate the reasons:

I believe in the participation of the community in school affairs.

I believe that parents are interested in their children's education.

Parents should help the schools in their task of providing a better learning environment for the students.

3. Consideration of possible negative consequences. Table 4 (see Appendix C) demonstrates that in the area of

community--parents and relatives, approximately one-half of the principals consider possible negative consequences for the decision.

Table 5 (see Appendix C) is a cross-checking of the consideration of possible negative consequences for the decision in this area of *community--parents and relatives*.

4. Reasons for considering the decision a success.

About *community--parents and relatives*, Table 6 (see Appendix C) shows that the majority of the respondents report the decision a success.

Yes, everyone in this school is in agreement with the program that we organized for the accomplishment of this decision.

Yes, the parents are helping us to become more aware of the problems of each student. Therefore, we can work with these problems with a better perspective and understanding of each child.

Yes, there are many parents who are really interested in the academic progress of their children. This has been very helpful for the educational progress of the students.

Yes, the parents not only accept the responsibility of the school organization, but they try also to help the school to understand their children.

5. The emergency character of the decision and the difficulties encountered. Table 7 (see Appendix C) indicates that a very small number of principals say that the decision about *community--parents and relatives* had an emergency character. They also point out that the difficulties encountered are related to a decree of the political authority.

6. The identification of the problems in the process of making decisions. Table 8 (see Appendix C) demonstrates that in the area of *community--parents and relatives*, over one-half of the principals report that the decision is a response to clearly identified problems. These principals comprise three groups: Those who report that the problem is related to the students, those who report that the problem is to be categorized as "other," and those who are undecided. The following excerpts from the interviews exemplify the nature of the problems reported by the principals:

The parents were not aware of the academic achievement of their children; they were ambivalent about this matter.

Various problems were identified, such as absenteeism, discipline, and the academic achievement of our students.

The State Secretariat of Education intends that, in this state, the community be more active in school affairs, as is the case in the United States. The problem lies in the fact, however, that our community is not yet prepared for this task. Indeed, in the U.S.A., since the advent of the Pilgrim fathers, the communities have been involved in the affairs of the schools; this is not how things are in Brazil. Our communities are always receiving benefits from the government; thus the people in our communities are not accustomed to the idea of giving their resources to the schools.

7. Consideration of relevant factors in the decision-making process. Table 9 (see Appendix C) indicates that in the area of *community--parents and relatives*, almost one-half of the principals consider outcomes as the factors considered in the decision.

8. Criteria used for judging a decision good.

Table 10 (see Appendix C) indicates that in the area of *community--parents and relatives*, over one-half of the principals report that, to their knowledge, the decision is a good one. They report that agreement on objectives, agreement on the decision as such, and anticipated results of the decisions are the criteria used. The following excerpts illustrate these criteria:

The decision with respect to parents and relatives was considered a good one because the staff was in agreement on the objectives of the decision.

The decision in the area of parents and relatives was considered a good one by the staff because we were all in agreement on the decision as such.

The decision about parents and relatives was made by the staff and parents, and it was considered a good one because all of us anticipated good results from the decision.

The decision with respect to parents and relatives was considered a good one because when the staff made the decision we had the blessings of the higher educational authorities.

9. Determining the objectives of the decision.

Table 11 (see Appendix C) demonstrates that regarding the area of *community--parents and relatives*, over one-half of the principals indicate that they define the objectives for the decision before they formulate and examine the decision.

10. Criteria used for analyzing the validity of the decision. Table 12 (see Appendix C) indicates that in the area of *community--parents and relatives*, fewer than one-third of the principals point out that the number of persons

preferring the decision is the criterion they use to evaluate the decision. A very small number report that they use other criteria to determine whether a decision is a good one or not, before its implementation. The following citation from the interviews indicates the sort of criterion used by these respondents:

We decided to make a survey in the community and, thus, to determine the reaction of the people to the decision. Considering the results, I believed that the decision was a good one.

11. Criteria used for determining whether a decision would have the desired result. Table 13 (see Appendix C) indicates that about the issue of *community--parents and relatives*, a small number of principals report that the criteria used to judge whether the decision would have the desired result are the benefits teachers alone receive. The following quotation from the interviews illustrates this point:

The teachers can be of greater service in the academic and personal success of the students only if they have the support of the parents.

A very small number of the principals report that the benefits to the staff are the criteria they use. Almost one-fourth of the principals report that the benefits to the parents and relatives are their measure. This way of thinking is expressed in the following excerpt from the interviews:

The parents know their children; thus, they can help the school and vice versa.

As was stated previously, Table 14 and Table 15 deal with information which pertains to the establishment of priorities for the school year 1976, and the utilization of specific models or approaches to the decision-making process.

Table 14 (see Appendix C) shows that a very small number of the principals are placed in the category of "other" (see Table 14). The following quotations excerpted from the interviews illustrate what is reported by these principals, individually and collectively:

I demand that all decisions be based on a rational and logical theory.

We take experience as a basis for our decisions.

Table 15 (see Appendix C) shows that all the principals indicate that in their overall planning for the school year of 1976, their priority area is *students*.

The students were our major priority this school year since they are the most important element in our school.

In the first instance our major priority was to ensure educational opportunities for children from the first to the eighth grade; secondly, to integrate the schools of this complejo escolar.

In the area of *community*, almost one-half of the principals report that this area is established as a priority area.

With respect to the area of *school*, over one-fourth of the principals report it a priority.

A small number of the principals say that *teachers* are a priority for the school year of 1976. The following excerpts illustrate the priorities:

I established two priority areas for the school year of 1976: (1) to fulfill the needs of the students; and (2) to have sufficient water for the needs of the school.

First, the major priority established was to meet the needs of the students; secondly, to improve the relations between school and community.

Three priority areas were established: (1) to promote the school in the community by creating a positive image of the school; (2) to instill some pride in the students through their active involvement in the school's activities; and (3) to improve the relationship between school and community.

For the school year of 1976, three priorities were established: (1) to improve the academic level of the students; (2) to update the knowledge of the teachers; and (3) to foster greater participation between school and community.

Four priorities were established for the school year of 1976: (1) to raise the academic level of the students; (2) to improve the physical aspect of the school; (3) to select teachers for this school according to their level of qualification; and (4) to improve the relationship between the school and the community.

Research Question 2:

In which areas of school concerns do principals have authority to make decisions; and what is the participation of the staff in the decision-making process?

With respect to research question 2, for each general area of school concerns as previously stated, viz., curricula, personnel, finance, students, and community, the data are presented in the following sections.

Curricula

The highlights concerning this area are presented in the six sections that follow.

1. Individuals or organizations responsible for decisions made. Table 16 (see Appendix D) shows that in the area of *curricula--methods*, almost all of the principals say that the staff makes the decision; a very small number say that they make the decision alone. Concerning *curricula--textbooks*, SEC makes the decision for the school. This situation is highlighted by the fact that all of the principals who report a decision in this specific area note this arrangement.

2. Involvement of principals in the decision-making process. Table 17 (see Appendix D) shows that in the area of *curricula--methods*, all the principals are involved. Over one-half report their involvement through group discussion alone. The following excerpts from the interviews illustrate:

I supported the ideas of the pedagogical coordinator, educational counselor, and teachers. Indeed, the educational counselor lectured about the emotional problems that could be responsible for students' failure.

We asked the teachers to study the curriculum proposals presented by SEC and then decide on the method or methods which is/are most pedagogically sound.

I relied on the opinion of both the pedagogical coordinator and the teachers, but mainly the latter.

The teachers gave the ideas and, taking into account past experience, the decision was made.

In decisions in the area of *curricula--textbooks*, principals are not involved.

3. Involvement of the staff in the decision-making process. Table 18 (see Appendix D) shows that with respect to *curricula--methods*, the group with the highest involvement is the teachers, followed by vice-principals, pedagogical coordinators, and counselors. These members of the staff are involved because of their expertise. The following citations from the interviews demonstrate how they are involved:

The teachers were involved in this decision through discussions in which they shared experiences with the group. They were the key elements of the decision.

The teachers were involved through group discussion. They were involved because the decision is related to them and they are knowledgeable in the subject.

The pedagogical coordinator was involved by giving suggestions to the teachers. The school coordinator is responsible for the pedagogical activities of the school; indeed, she works closely with the teachers; she is supposed to help them.

4. Principals' consideration of creative ideas of the staff in the decision-making process. Table 19 (see Appendix D) shows that in *curricula--methods*, a majority of the principals consider creative ideas offered by staff members.

5. Mode by which the staff's ideas are incorporated in the decision-making process. Table 20 (see Appendix D) reveals that in the area of *curricula--methods*, the channels which principals use the most to incorporate the ideas of

the staff into their deliberations are discussion, analysis, and implementation of the suggestions given by members of the staff.

6. Reluctance of the staff in giving opinions about the decision-making process. Table 21 (see Appendix D) shows that in the area of *curricula--methods*, principals are divided as to whether or not the staff is reluctant in expressing opinions in the decision-making process.

The majority of the principals report that staff members' ideas are generally accepted in the decision-making process.

Personnel

The salient points related to this area are discussed in the six sections that follow.

1. Individuals or organizations responsible for decisions made. Table 16 (see Appendix D) shows that with respect to *personnel--evaluation*, a majority of the principals indicate that the staff make the decision; a small number of the principals make the decision alone. DERE seems to have a small degree of authority in such decisions, since only a very small number of the principals say that DERE is responsible for this decision. Concerning *personnel--hiring*, SEC makes the decision for the school. All principals note this fact.

2. Involvement of principals in the decision-making process. Table 17 (see Appendix D) indicates that with respect to *personnel--evaluation*, almost all of the principals report their involvement. Group discussion alone is the technique most frequently used; over one-third of the respondents report it. The following quotations from the interviews illustrate the responses:

I agreed with the ideas of two pedagogical coordinators, because they are responsible for the pedagogical orientation of this school.

The teachers were given an opportunity to express their opinion, and I added mine too.

In *personnel--hiring*, a majority of the respondents are involved in the decision-making process; almost one-third are not involved. The following excerpts from the interviews exemplify how the principals are involved:

We indicated to SEC the need for hiring more teachers in our schools.

We were involved because the identification of the need for hiring teachers is our responsibility.

I indicated to SEC the need by areas of specialization and the names of the teachers; the majority of the people who were presented were hired.

I indicated to SEC the need for hiring teachers, in terms of numbers and areas of specialization.

3. Involvement of the staff in the decision-making process. Table 18 (see Appendix D) shows that in the decision about *personnel--evaluation*, over one-half of the principals indicate that they involve vice-principals and pedagogical coordinators, more than one-fourth report

that they involve teachers, and less than one-fourth report the involvement of others. The particular expertise of the staff members is the reason for his/her involvement. The following quotations from the interviews illustrate the point:

I involved not only pedagogical coordinator but also teachers; they were involved because they work in education and are knowledgeable individuals.

The pedagogical coordinator was involved because she works with the teachers and she is responsible for the technical orientation of them.

The teachers were involved in the discussion of the problem since the matter was related to them.

The pedagogical coordinators gave the suggestions because they work closely with the teachers; thus they are more able to help with the problems than the principal and vice-principal.

The local supervisor of DERE gave the suggestions because she works very closely with our school.

4. Principals' consideration of creative ideas of the staff in the decision-making process. Table 19 (see Appendix D) shows that in the decision regarding *personnel--evaluation*, over one-half of the principals indicate that they consider the ideas of the staff.

5. Mode by which the staff's ideas are incorporated in the decision-making process. Table 20 (see Appendix D) demonstrates that in *personnel--evaluation*, almost one-half of the principals use discussion, analysis, and implementation as techniques for incorporating the ideas of the staff into the decision-making process.

6. Reluctance of the staff in giving opinions about the decision-making process. Table 21 (see Appendix D) shows that in *personnel--evaluation*, over one-half of the principals report that ideas of the staff are generally accepted in the decision-making process, and that staff members are not reluctant to express their ideas in this area.

Finance

Concerning *finance*, the highlights are discussed in the six sections that follow.

1. Individuals or organizations responsible for decisions made. Table 16 (see Appendix D) demonstrates that in the area of *finance--budgeting*, SEC makes the decision for the schools. All principals are agreed on this. The following excerpt from the interviews exemplifies the point:

The Secretariat of Education and Culture gives specific guidelines regarding the ratio of financial allocation to the schools--40 percent to the physical plants per se, and 60 percent to the students. The principals are then in a position to determine the amount which will be allocated to specific areas under the two headings.

With respect to *finance--allocation of financial resources to specific areas*, the decision is the responsibility of the staff; the majority of the principals note this. Only a minority of the principals report that they are responsible for making this decision.

2. Involvement of the principals in the decision-making process. Table 17 (see Appendix D) indicates that in the area of *finance--allocation of financial resources to specific areas*, principals do not transfer responsibility to the specialists of their staff. Here a majority of the principals are involved in the decision-making process through both the idea and group discussion or with the idea alone. Involvement of the principals through the idea and group discussion is higher than involvement with the idea alone.

3. Involvement of the staff in the decision-making process. Table 18 (see Appendix D) shows that in the area of *finance--allocation of financial resources to specific areas*, most of the vice-principals are involved. About one-half of the coordinators and counselors are involved. Clerical workers and teachers are involved equally--over one-third of each. Excerpts from the interviews illustrate the reasons for the staff's involvement:

The teachers were involved because they work closer to the students; thus, they are more able to identify problems related to them.

The pedagogical coordinators and school counselors were involved in giving suggestions because each one is a specialist and is able to offer knowledgeable contributions.

The administrative assistant was involved in giving suggestions because she works closely with the person who is responsible for the preparation of the school feeding program.

The entire staff was involved through discussion since our objective is the total development of the student.

Pedagogical coordinator, school counselor, and teachers were involved through group discussion because they work closely with the students and thus are able to observe them and note changes in their behavior.

4. Principals consideration of creative ideas of the staff in the decision-making process. Table 19 (see Appendix D) shows that in *finance--allocation of financial resources to specific areas*, all of the principals suggest that they accept the ideas of the staff.

5. Mode by which the staff's ideas are incorporated in the decision-making process. Table 20 (see Appendix D) indicates that in *finance--allocation of financial resources to specific areas*, more than one-half of the principals use discussion, analysis, and implementation to incorporate the ideas of the staff members.

6. Reluctance of the staff in giving opinions about the decision-making process. Table 21 (see Appendix D) shows that over one-half of the principals report that in *finance--allocation of financial resources to specific areas*, the staff is not reluctant to express their ideas. The majority of the principals report that staff members' ideas are generally accepted in the decision-making process.

Students

The issues related to *students* are presented in the six sections that follow.

1. Individuals or organizations responsible for decisions made. Table 16 (see Appendix D) indicates that in the area of *students--evaluation*, over one-half of the principals say that the staff of the school is responsible for the decision. Approximately one-third say that SEC is responsible.

With respect to *students--promotion*, the principals disagree about who is responsible for this decision. Almost one-half say that the staff members make the decision; more than one-half report that SEC makes it.

2. Involvement of the principals in the decision-making process. Table 17 (see Appendix D) shows that in the area of *students--evaluation*, over one-half of the principals are involved in the decision. Group discussion alone is the technique most utilized.

In the area of *students--promotion*, almost one-half of the principals are involved, and the mode of involvement for more than one-fourth is through group discussion alone.

3. Involvement of the staff in the decision-making process. Table 18 (see Appendix D) demonstrates that with respect to *students--evaluation*, principals and teachers are involved to the same degree. Others involved are vice-principals and pedagogical coordinators, with almost one-half and over one-third of their members, respectively, being involved. The following quotations show that these

individuals are involved in the decision-making process because of their expertise:

The teachers participate through discussion and evaluation of the suggestions, since they are the most appropriate individuals on the staff to evaluate the students.

The pedagogical coordinator was involved through discussion since she deals directly with the teachers in the technical pedagogical aspect of the curricula.

This is a decision that relates strictly to the teachers, and since they are knowledgeable in the subject, I did not see the need for principals and vice-principals to be involved.

The pedagogical coordinators were involved with suggestions, and they made the decision since they are in contact with the teachers.

The pedagogical coordinators were involved in the discussion of the subject because they are knowledgeable about the learning process. Thus, they are able to provide good suggestions for the decision.

In the area of students--promotion, fewer than one-half of the principals, vice-principals, pedagogical coordinators, and others are involved. Their involvement is a result of their expertise also.

The teachers were involved and made the decision. They are the individuals who are responsible for the students academic development.

The vice-principal was involved because she is very knowledgeable.

The supervisor of DERE was involved through group discussion; she is an expert in the matter.

The vice-principal and pedagogical coordinator were involved through discussion. They are very active staff members in our school and we have the same objectives in mind--the students' total development.

4. Principals' consideration of creative ideas of the staff in the decision-making process. Table 19 (see Appendix D) shows that about *students--evaluation*, over one-half of the principals say that they use the ideas of the staff.

About *students--promotion*, over one-third of the principals report that they take into consideration the ideas the staff members offer.

5. Mode by which the staff's ideas are incorporated in the decision-making process. Table 20 (see Appendix D) shows that in the area of *students--evaluation*, the ways the principals use the most to incorporate the ideas of the staff into the decision-making process are discussion, analysis, and implementation of the suggestions which are given.

The pedagogical coordinator suggested the idea about the evaluation of students, and the idea was discussed and implemented.

With respect to *students--promotion*, over one-fourth of the principals use discussion, analysis, and implementation in incorporating the ideas of the staff into the decision-making process.

Vice-principals, pedagogical coordinator and teachers gave the ideas regarding the promotion of students; we discussed and analyzed these ideas and the one that was decided on as the best one was implemented.

6. Reluctance of the staff in giving opinions about the decision-making process. Table 21 (see Appendix D)

demonstrates that over one-half of the principals note that in the area of *students--evaluation*, staff members' ideas are generally accepted in the decision-making process. Over one-third of the principals report that staff are not reluctant to express their ideas concerning this area.

About *students--promotion*, almost one-half of the principals indicate that staff members' ideas are generally accepted in the decision-making process; and approximately one-fourth report that staff are not reluctant to express their ideas.

Community

With respect to *community*, the relevant factors are discussed in the six sections that follow.

1. Individuals or organizations responsible for decisions made. Table 16 (see Appendix D) demonstrates that in the area of *community--parents and relatives*, the principals disagree about which organizations or persons are responsible for this decision. Over one-half say that staff members are responsible for the decision; almost one-half say that the responsibility falls within the ambit of SEC.

2. Involvement of the principals in the decision-making process. Table 17 (see Appendix D) shows that in the area of *community--parents and relatives*, over one-half of the principals are involved in the decision, but they are divided in the way they perceive their involvement. Those

who report that they are involved in this area say variously that their involvement is through group discussion alone, the idea and group discussion, and the idea alone.

3. Involvement of the staff in the decision-making process. Table 18 (see Appendix D) indicates that in the area of *community--parents and relatives*, the involvement of principals and teachers is equal. Vice-principals, pedagogical coordinators, and school counselors have different degrees of involvement in this decision; however, expertise is the criterion for their involvement. Excerpts from the interviews highlight this:

The teachers were involved throughout the discussion because they understand that without the help of the parent and/or relatives their students cannot succeed scholastically.

The pedagogical coordinator, school counselor, administrative assistant, secretary, and teachers were involved because each one in her specialization is knowledgeable in the subject.

4. Principals' consideration of creative ideas of the staff in the decision-making process. Table 19 (see Appendix D) shows that in the decision in the area of *community--parents and relatives*, almost one-half of the principals indicate that they consider the creative ideas of the staff.

5. Mode by which the staff's ideas are incorporated in the decision-making process. Table 20 (see Appendix D) shows that in the area of *community--parents and relatives*, almost one-fourth of the principals use discussion, analysis,

and implementation in incorporating the ideas of the staff in the decision-making process. The following excerpt from the interviews illustrates this point:

The teachers and the school coordinator gave the suggestion with respect to parents and relatives, and the suggestions were discussed and analyzed, and the best one was implemented.

6. Reluctance of the staff in giving opinions about the decision-making process. Table 21 (see Appendix D) indicates that over one-third of the principals report that in the area of *community--parents and relatives*, staff members are not reluctant to express their ideas. Almost one-half of the principals report that staff members' ideas are generally accepted in the decision-making process.

Research Question 3:

Is there any kind of information or advice network giving input to the principals in the decision-making process for specific areas of school concerns?

For research question 3, the findings are presented in two ways, as was stated previously in the introduction of this chapter.

Curricula

1. Involvement of external group in the decision-making process. Table 22 (see Appendix E) shows that a majority of the principals report that external groups do not give input in the decision related to *curricula--methods*,

in contrast to a minority who report that they receive input from external groups. Those who receive external input point out that professionals are the ones who give this input. One principal reports that the professional is involved in the decision-making process through group discussion alone; the other principal, however, does not report what mode is used to give the external input. The following statement is from the first principal:

The supervisor of DERE was involved in the group discussion. She helped our group in the discussion stage of the decision-making process.

Personnel

1. Involvement of external groups in the decision-making process. Table 22 (see Appendix E) demonstrates that in the area of *personnel--evaluation*, a majority of the principals report that they do not receive external input in the decision-making process; a minority indicate that they do receive external input. Of the former, only one mentions that the input is given by a professional, and this professional's involvement is with the idea alone.

The supervisor of DERE initiated the idea which helped to formulate the decision and I accepted it. Although she works very closely with our school, she does not belong to our staff.

Finance

1. Involvement of external groups in the decision-making process. Table 22 (see Appendix E) shows that with

respect to *finance--allocation of financial resources to specific areas*, all the principals report that external groups do not give input in the decision.

Students

1. Involvement of external groups in the decision-making process. Table 22 (see Appendix E) demonstrates that about *students--evaluation*, over one-half of the principals report that they do not receive input from any external group.

About *students--promotion*, almost one-half of the respondents report that no external input is given; a small number say that they do receive external input. The latter report the involvement of both professionals and nonprofessionals. The professional mentioned is the supervisor of DERE/NSP, and he/she is involved through group discussion alone; the nonprofessional is not identified by title or mode of involvement.

Community

1. Involvement of external groups in the decision-making process. Table 22 (see Appendix E) indicates that in the area of *community--parents and relatives*, over one-third of the principals report that they do not receive external input in the decision-making process, in contrast to a small number who report that they do receive external input. These external inputs are given by professionals and

nonprofessionals. The external input given by professionals is through group discussion alone and the involvement of the nonprofessionals falls into the category of "other." Almost one-half of the principals report that they are not involved in this decision. The following excerpts from the interviews illustrate the ways the external inputs are given to the principal:

The parents of our students were influential in the decision related to the area of parents and relatives; indeed, the decision was made at one of the PTA meetings.

I consulted one social worker who belongs to the staff of the Secretariat of Education. Thus I consider that the decision relating to community was influenced behind the scenes by people outside of our staff.

As was stated previously (see introduction of this chapter), the involvement of professionals and non-professionals in upper and/or lower echelons of the educational hierarchy in the decision-making process is presented in Tables 23 through 26.

Tables 23 and 24 (see Appendix E) complement each other; thus, they are presented together. They show, respectively, percentages and titles and actual numbers and titles of individuals from whom the principals seek information or advice related to the decision-making process. According to the data of these tables, over one-third of the principals report that they seek information or advice from professionals in the upper echelon only. Almost one-half of the principals report that they seek advice from

professionals in the lower echelon, and less than one-fourth report that they seek advice from professionals in both upper and lower echelons. Of those principals who report that they sought counsel from professionals in the upper echelon only, five cite the coordinator or the supervisor of DERE/NSP, and two report that they utilize the expertise of personnel from the Secretariat of Education and Culture. The following excerpts illustrate:

I usually seek the advice of the specialists of DERE because they are a part of the educational hierarchy and, as such, represent the authorities.

In general, I go to different heads of departments in the Secretariat of Education, depending on the nature of the problem. I think that using intermediaries to solve problems relating to education only serves to delay prompt action.

I usually go to the staff of DERE/NSP, not only because they have the expertise, but also because they have frequent contact with the specialists of SEC.

Of those principals who report that only professionals in the lower echelon are involved, five mention vice-principals; five, pedagogical coordinators; three, teachers; three, counselors; two, secretaries; two, clerical workers; and one, a colleague principal. Excerpts from the interviews illustrate:

I go to the school staff because they are the ones who know the needs of the school in its entirety. They are aware of the problems and are also experienced in educational matters.

I go to the pedagogical coordinator for personal reasons, not exactly for technical reasons. It is a question of rapport. . . . She is a very well-informed person. . . . She relates very well with

the teachers and students. I feel comfortable talking to her when I need information or advice. I also discuss matters pertaining to administrative problems with the vice-principal because of his/her expertise.

I go to the teachers for advice since we are not a big group and the teachers, in the past, have been ignored in the decision-making process. Hence, as a group, all of us offer some input for the formulation of pertinent and effective decisions.

I counsel with the staff because in the first instance I repose a certain amount of confidence in them. Secondly, I want to involve them in the decision-making process of this school.

Of those principals who report that professionals of the upper and lower echelons are involved, the data of Table 24 show that in the category of professionals of the upper echelon, three principals report that they seek the advice of the coordinator and the supervisor of DERE/NSP. In the category of professionals of the lower echelon, three principals report that they counsel with vice-principals; two, with pedagogical coordinators; two, with teachers; two, with counselors; one, with secretaries; and one, with clerical workers. The following quotations from the interviews illustrate what the data seem to indicate:

Depending on the nature of the problem, I will seek information or advice either from the upper or the lower echelon personnel of the educational hierarchy. If the problem refers to the learning/teaching situation, I go to the staff of the school. On the other hand, if it is strictly an administrative matter, I will seek the sources of DERE/NSP.

I discuss the problems with the vice-principal because he/she is a potential principal and therefore we both should have knowledge of the decisions

which are made. I go also to the supervisors of DERE/NSP since they are the link between principals, teachers, and students.

Tables 25 and 26 (see Appendix E) also complement each other; hence they are presented together. From Table 25 it can be seen that a small number of the principals report that they often discuss administrative problems only with professionals in the upper echelon of the educational hierarchy.

Over one-third of the principals report that they discuss administrative problems only with professionals in the lower echelon of the educational hierarchy. On the other hand, over one-half of the principals report that they discuss administrative problems with individuals in both upper echelon and lower echelon of the educational hierarchy.

Table 26 (see Appendix E) shows that of those principals who report that they only seek advice from individuals of the upper echelon only, one principal mentions that he/she discussed administrative problems with the Secretary of Education, heads of the departments of SEC, and coordinators of DERE/NSP.

Of those principals who report that they discuss administrative problems with professionals in the lower echelon only, six mention vice-principals and pedagogical coordinators. Four principals report that they seek the advice of a colleague, i.e., another principal. Three

principals indicate that administrative assistants are their source of advice, and one mentions secretaries.

Of those principals who report that they seek advice of professionals of both upper and lower echelons, Table 26 (see Appendix E) shows that in the upper echelon, seven principals mention coordinators of DERE/NSP as individuals with whom they discuss administrative problems. Two principals mention the supervisors of DERE/NSP. One principal mentions the heads of the Department of Secretariat of Education and Culture. With respect to professionals in the lower echelon, five principals indicate vice-principals; four, another colleague, a principal; four, teachers; and three, pedagogical coordinators.

Research Question 4:

Are there basic differences between principals with respect to certain selected personal-social and environmental variables?

The first part of the interview guide is designed to obtain data on *personal-social variables* of the principals and on *environmental variables* of the community in which the schools are located. For research question 4, the questions from the interviews are clustered according to their similarities and they are presented in seven tables. The data concerned with *personal-social variables* are presented in Tables 27 through 31, and the data concerned with *environmental variables* are presented in Tables 32 through 33.

The tables are not presented in the order of importance; however, the sequence helps the detailed examination of the selected variables.

Table 27 (see Appendix F) shows that almost one-half of the principals report that the degree they have is an abbreviate licenciante, and the others that they hold the baccalaureate of arts. A majority obtained their college degree after 1974, and some report that further education is required for their current job.

The ages of the principals are distributed as follows:

<u>Age</u>	<u>Percentage</u>
56 and over	--
46-55	28
36-45	67
26-35	5
Below 26	--

A majority of the principals are in the age range of 36-45; some are in the 46-55 age group, and a few in the 26-35 age group.

Table 28 (see Appendix F) presents the data concerning the *principals' professional experience in the field of education*. Almost one-half of the principals have teaching experience in general ranging from 10 to 15 years, and the remainder have 16 to 25 years experience. A small number of the respondents have more than 25 years of teaching experience in general, in contrast to some who have less than 10 years.

With respect to the number of years of teaching experience at the present school, i.e., *complexo escolar*, almost all the principals have less than 5 years of teaching experience while less than one-fourth have more than 10 years.

In regard to years of experience being a principal, a majority of the principals have from 5 to 15 years of experience. On the other hand, one-third have less than 5 years of experience as a principal, and less than one-fourth have more than 15 years.

With regard to years of experience as a principal in the current position, the data reveal that almost one-half of the respondents have from 5 to 10 years of experience, less than one-fourth have more than 10 years, and almost one-half have less than 5 years of experience in the present job.

Table 29 (see Appendix F) shows that with respect to the number of workshops attended, eight principals have not attended any during the period of 1974-1976; one principal is in the category of 1-5 workshops; seven are in the range of 6-15; and two have attended more than 15 workshops during the period. The total number of workshops held were 169; thus, on the average, each principal attended 9 workshops.

Nine principals did not attend any seminars during the period studied; seven principals fall in the

range of 1-5; and two principals are in the range of 6-8. The total number of seminars attended in the period of 1974-1976 is 37. Thus on the average, each principal attended 2 seminars during the two-year period.

Six principals attended fewer than 50 meetings during the period under review. Another six participated in 51-150 meetings, while four principals fall in the range of 151-250 meetings, and two principals have attended more than 250 meetings. The number of meetings attended by the principals during the two-year period totaled 2,153. Thus the average attendance of the principals is 120 meetings.

Five principals say that from 1974 to 1976 they read no books in education. Ten principals have read from 1 to 5 books, two have read from 6 to 10 books, and one has read more than 15 books. The number of books in education read by principals during the period of 1974-1976 totals 56. Therefore, the average number of books each principal read is 3.

Twelve principals do not subscribe to any educational journals. Four principals subscribe to from 1 to 3 journals, and two principals subscribe to from 4 to 6 journals.

Eight principals are not members of any educational society. Five have been members for 1 to 10 years, four for 11 to 12 years, and one for more than 20 years.

Table 30 (see Appendix F) shows that the principals have a positive attitude toward the experimental program; all of the principals giving positive answers. All of the principals report that they are highly motivated toward the experimental program. A majority of the principals report high expectations from the program, in contrast to a small number who report low expectations.

With regard to the *exchange of information, experience, and ideas among principals*, the following is a tabulation of the data:

<u>Type of Communication</u>	<u>Percentage</u>
Formal	44
Informal	39
None	17

These results indicate that almost one-half of the principals report that formal communication takes place among them; more than one-third say that informal communication takes place among them. A small number say there is no communication among the principals.

Table 31 (see Appendix F) presents data regarding the *principals' annual salary and principals' family income* for the year of 1976.

Both annual salary and family income are given in cruzeiros (symbol Cr\$), the Brazilian currency.

An analysis of the data of this table indicates that with respect to principals' annual income from salary,

in cruzeiros, a small number earn less than Cr\$10.000. Over one-third of the principals earn between Cr\$10.000 and Cr\$50.000 from salary; almost one-half earn between Cr\$51.000 and Cr\$90.000; and a small number earn between Cr\$111.000 and Cr\$130.000

A small number have a total annual family income of from Cr\$10.000 to Cr\$30.000. Approximately one-third fall in the Cr\$31.000 to Cr\$90.000 range; over one-fourth in the Cr\$111.000 to Cr\$170.000 range; a small number in the Cr\$191.000 to Cr\$210.000 range; and a very small number have a total family income of more than Cr\$230.000.

Table 32 (see Appendix F) shows the *characteristics of the community*. All of the schools are located in urban areas. Over one-fourth of the principals report that their schools are located in communities with 100 percent blue-collar workers; a very small number report that their school is located in communities with 100 percent white-collar workers. Almost one-half of the principals report that the schools are located in communities composed of approximately 70 percent blue-collar and 30 percent white-collar workers.

Table 33 (see Appendix F) shows the *percentage of technical/administrative personnel and teacher turnover*. The *percentage of principals' absenteeism* is also presented. The data indicate that a very small amount of the technical/administrative personnel turnover is transferral. On the

other hand, another very small number of technical/administrative personnel are away from their jobs because of pregnancy or retirement.

A very small number of teachers are away from their jobs because of pregnancy, transferrals, or leaving the profession.

Almost one-half of the principals were absent from their schools for 0 to 30 days. Almost one-third were absent for 31 to 80 days, and over one-fourth were absent for 81 to more than 130 days.

Table 34 (see Appendix F) indicates that over one-half of the principals do not reside in the community where the school is located, while over one-third reside there.

Over one-half of the principals use their own car to get to school, one-third report that their residences are located within walking distance, and a very small number use public transportation.

Table 35 (see Appendix F) shows that all of the principals report that there is easy access from their schools to the offices of DERE/NSP; and a majority of the principals indicate that there is easy access from their schools to the offices of SEC.

Deviant Case

Among the 22 principals who were selected for this study, three failed to meet the criteria established by the researcher for the selection of decisions for the analysis

of the dynamics of the decision-making process (described in Chapter III).

Among the five general areas of school concerns, it was possible to select decisions of these three principals in only two of the general areas of school concerns, i.e., *students* and *community*. Since the other decisions of these principals were so dissimilar to the other principals, it was difficult to follow their decision-making process. An analysis of these deviant cases may help give an understanding of factors which may influence individuals and cause possible deviation from the majority.

A closer look at this group of principals in relation to the personal-social and environmental variables selected for this study is appropriate. To accomplish this, a comparison of the deviant group of principals is made with the other five groups, the majority group.

In this section the data for the majority group are not presented again, since they are presented in the section related to Research Question 4.

A comparison between the two groups, i.e., the deviant group and the majority group, with respect to personal-social and environmental variables, follows.

Table 36 (see Appendix G) indicates that one-third of the principals in the deviant group report that the degree they have is the abbreviate licenciante; two-thirds have the

baccalaureate of arts. All of these principals received their degrees after 1974, and two-thirds report that further education is required for their current job.

Table 37 (see Appendix G) indicates that all of the principals in the deviant group are in the age cohort of 36-45.

Table 38 (see Appendix G) indicates that two-thirds of the principals in the deviant group have teaching experience in general ranging from 15 to 20 years, while one-third have experience of less than 10 years.

At the present school, the *complexo escolar*, two-thirds of the principals of the deviant group have less than 5 years of teaching experience; while one-third have 5 to 10 years of experience.

With respect to experience in being a principal, one-third of the principals in the deviant group have practical acquaintance with this area of administration, while two-thirds have 11 to 15 years of this experience.

In relation to experience as a principal in the current position, one-third of the principals of the deviant group indicate that they have been in the position for less than 5 years; on the other hand, two-thirds have enjoyed it for more than 10 years.

Table 39 (see Appendix G) indicates that, questioned about number of workshops they attended, the three principals of the deviant group say that their attendance ranges

between 1 and 5 workshops; the average number attended by the principals was four.

With respect to number of seminars attended, the three principals of the deviant group fall into the range of 1 to 5 seminars. The number of seminars attended totaled nine; thus, on the average, a principal attended three seminars.

Three principals of the deviant group attended fewer than 50 meetings during 1974-1976. The total number of meetings held was 96; hence, the average attendance of the principals was 32 meetings.

Three principals of the deviant group read from 1 to 5 books on education during 1974-1976. The number of books read totaled 10; therefore, the average number of books read by each principal is three.

Two of the principals of the deviant group subscribe to 1 to 3 educational journals.

Two principals of the deviant group are not members of any educational organization. One principal has been a member for somewhere between 1 and 10 years.

Table 40 (see Appendix G) indicates that all of the principals in the deviant group report a positive attitude toward the experimental program.

All of the principals in the deviant group indicate that they have high motivation and expectations toward the experimental program.

Table 41 (see Appendix G) reveals that two-thirds of the principals of the deviant group report that informal communication takes place among principals, while one-third indicates that there is no communication among the principals.

Table 42 (see Appendix G) shows that one-third of the principals in the deviant group earn less than Cr\$10.000 annually; one-third earn between Cr\$10.000 and Cr\$30.000, and one-third earn between Cr\$111.000 and Cr\$130.000.

One-third of the principals in the deviant group have a total annual family income of less than Cr\$10.000; one-third range between Cr\$10.000 and Cr\$30.000; and the other one-third are between Cr\$151.000 and Cr\$170.000.

Table 43 (see Appendix G) indicates that all of the schools of the deviant group are located in urban areas. Two-thirds of the principals of the deviant group report that their schools are located in communities with 70 percent blue-collar and 30 percent white-collar workers, while one-third report that the school is located in a community with 50 percent blue-collar and 50 percent white-collar workers.

Table 44 (see Appendix G) indicates that there was no case of technical/administrative turnover for the period 1974-1976 in the deviant group.

In the deviant group of schools, a very small number of teachers were away from their jobs because of other circumstances, pregnancies, or transferrals.

Two-thirds of the principals in the deviant group said that their own absence from their schools amounted to 30 days or fewer. One-third were absent 41 to 50 days.

Table 45 (see Appendix G) indicates that all of the principals of the deviant group reside in the community where their schools are located.

Two-thirds of the principals in the deviant group drive their own car to school, and one-third have residences located within walking distance.

Table 46 (see Appendix G) shows that all the principals of the deviant group say that their schools are located close to the offices of DERE/NSP. The same respondents report that their schools are located far from the offices of the SEC.

Summary

Findings

Research Question 1

1. A small number of principals did consider alternatives when they made their decisions, but only in the areas of *curricula--methods*, *personnel--evaluation*, and *students--evaluation*.

2. Principals in general used the outcomes of a decision as the relevant factors for judging a decision to be important or not, when they made decisions for different areas of school concerns.

3. The majority of principals did not consider the possible negative consequences when they made decisions related to the different areas of school concerns. Neither did they consider that the decision they made might produce unanticipated results. In fact, the only area where the minority gave this some consideration was the area of *personnel--evaluation*.

4. Basically, principals detailed the reasons why they judge that the different decisions they made were successful, not successful, or partially successful.

5. In overall planning for the school year of 1976, principals rated students as priority group number one; in general, teachers were given a low priority rating. The community was given second priority, and the school third.

6. A very small percentage of principals did not differentiate clearly between decisions they made as a result of emergency problems and ones they made as a result of nonemergency problems.

7. Principals made decisions as a response to clearly identified problems in the various areas of school concerns, i.e., *curricula--methods, personnel--evaluation, finance--allocation of financial resources to specific areas, students--evaluation, promotion, and community--parents and relatives*.

8. Principals did not follow a specific model or line of thought when they made decisions related to the specified areas of school concerns. Rather, they relied on past experiences in these matters.

9. Anticipated results of decisions were the criteria principals used the most when evaluating decisions.

10. Principals had different criteria for judging whether or not decisions they made in specific areas of school concerns would have the desired results. In the areas of *personnel--evaluation* and *students--evaluation*, the criterion was benefits to teachers. In the areas of *finance--allocation of financial resources to specific areas* and *students--promotion*, the criterion was benefits to students. There were no striking differences between those principals who had parents and relatives as their standard of measure of success of the decision, and those who had benefits to teachers as their criterion for determining the desired results of decisions in the area of *community--parents and relatives*.

11. Principals were aware of the fact that they had to set objectives, and they tried to isolate the ends and then the means to achieve the selected objectives.

12. Principals used the agreement of the majority of staff members to determine the validity of the decisions before implementing them.

Research Question 2

13. Basically, principals exercised authority in the decision-making process of their own schools in the following areas: *curricula--methods, personnel--evaluation, and finance--allocation of financial resources to specific areas*. On the other hand, SEC assumed total responsibility for decisions in the areas of *curricula--textbooks, personnel--hiring and budgeting*, while DERE/NSP had minor authority in the specified areas of school concerns.

14. Concerning the areas of *students--evaluation, students--promotion, and community--parents and relatives*, the specific agents who were responsible for making decisions were not well defined.

15. Principals relied on members of staff for decisions in the areas of their expertise. Vice-principals were more involved in the areas of *personnel--evaluation, finance--allocation of financial resources to specific areas, and students--promotion*. Pedagogical coordinators were more involved in the areas of *personnel--evaluation and finance--allocation of financial resources to specific areas*. Counselors were more involved in the area of *finance--allocation of financial resources to specific areas* and had a very minor involvement in the areas of *curricula--methods and community--parents and relatives*. Teachers were involved in the areas of *curricula--methods, students--evaluation and promotion, and community--parents and relatives*.

16. Creative ideas of the staff were utilized by principals in different areas of school concerns.

17. Discussion, analysis, and implementation were the modes by which principals incorporated the ideas of the staff into the decision-making process.

Research Question 3

18. In the areas of school concerns investigated in this study, external groups were not a part of the machinery of the decision-making process. A small percentage of principals seemed to be influenced by external sources, either professionals or nonprofessionals, in the decisions they made in the areas of school concerns. However, professionals appeared to be the more influential of the two.

19. The coordinators and supervisors of DERE/NSP were the external upper echelon professionals to whom principals went for information or advice related to the decision-making process. Vice-principals and pedagogical coordinators were the internal lower echelon professionals whom principals usually sought for information or advice in the decision-making process. To a lesser degree principals sought the advice or information of teachers and counselors.

20. Principals ensured that professionals in both upper and lower echelons of the educational hierarchy became a part of the decision-making process when there was a need to discuss administrative problem. However, in the upper

echelon, the coordinators of DERE/NSP were the ones whose advice was most usually sought. In the lower echelon, vice-principals and pedagogical coordinators were the professionals consulted the most regarding information or advice related to administrative problems.

Research Question 4

21. The majority of principals in this selected group of schools were holders of the degree of baccalaurate of arts through (a) a concentrated program, i.e., the abbreviate licenciante and (b) the regular program, i.e., 3 to 4 years of college courses. In general, they were in the age cohort of 36-45.

22. Most of the principals had 10 to 15 years of teaching experience, but almost all had fewer than 5 years of experience in the school in which they were currently principals. Their experience as principals ranged from 5 to 15 years, and those who had 5 to 10 years as principal in their current school were equal in number to those who had fewer than 5 years of experience as principals.

23. Meetings and membership in educational societies were the avenues by which principals kept pace with current knowledge in the field of education.

24. The principals had a positive attitude and high degree of motivation and expectation toward the experimental program, the *complexos escolares*. Nevertheless, formal

communication among principals was low, i.e., less than 50 percent of them reported any.

25. The annual salary schedule of principals was divided into four categories: (a) less than Cr\$10.000; (b) Cr\$10.000 to Cr\$50.000; (c) Cr\$51.000 to Cr\$90.000; and (d) Cr\$111.000 to Cr\$130.000.

26. The annual family income of principals was divided into five categories: (a) Cr\$10.000 to Cr\$30.000; (b) Cr\$31.000 to Cr\$ 90.000; (c) Cr\$111.000 to Cr\$170.000; (d) Cr\$191.000 to Cr\$210.000; and (e) more than Cr\$230.000.

27. The greatest number of the schools were located in urban areas of which the estimated composition was 70 percent blue-collar and 30 percent white-collar workers.

28. The turnover of teachers and technical/administrative personnel was not high. However, absenteeism of the principals was high.

29. Approximately two-thirds of the principals did not live in the communities where their schools were located.

30. Over one-half of the principals drove their own cars to and from school. Some used public transportation and others lived within walking distance of the school.

31. Most principals were agreed that their schools were located within easy access of the offices of DERE/NSP and also SEC. The ease of access was based on good transportation and good roads.

*The Deviant Group Compared
to the Majority Group*

32. The principals of both the majority group and the deviant group were holders of the degree of baccalaurate of arts. Both groups obtained their degree by either of two methods, viz., the abbreviate licenciate or the three or four-year course. However, the entire deviant group obtained their degrees after 1974. Two-thirds of them took their degree because it was a requirement for their current position.

33. All of the principals in the deviant group were in the age cohort of 36-45. The principals in the majority group were distributed among the age cohorts of 46-55, 36-45, and 26-45. However, most of them were in the 36-45 cohort.

34. Two-thirds of the principals of the deviant group had 15 to 20 years of teaching experience. The majority group had principals with length of teaching experience distributed among all categories. However, almost one-half of the principals had experience in the range of 10 to 15 years, and approximately one-third had experience of 21 to more than 25 years. In the school in which they were currently principals, both groups of principals had almost 5 years of experience. The length of their experience as principals was, for the majority group, 5 to 10 years and the deviant group, 11 to 15 years. In their

current position as principal, two-thirds of the deviant group had more than 10 years' experience; in the majority group almost all the principals had teaching experience of less than 5 or from 5 to 10 years.

35. Meetings were the main means by which the majority group and the deviant group upgraded their knowledge in the field of education; however, the principals of the majority group were more involved than the principals of the deviant group. Workshops were the next most frequently used means; but, again, the deviant group was less involved than the majority group. Both groups read, on the average, the same number of books for the period 1974-1976. The majority group differed from the deviant group in the number of educational journals they subscribed to. The majority group had a higher number who did not subscribe to journals. The majority group had 10 principals with affiliation to educational societies, while the deviant group had only one.

36. In both the majority group and the deviant group, the principals had a positive attitude and a high degree of motivation and expectation toward the experimental program.

37. Formal communication did not exist among the principals of the deviant group, but did among nearly one-half of the majority group. Both groups reported that there

was informal communication. Only a small percentage in both groups reported that there was no communication of either sort.

38. The majority group and the deviant group differed with respect to principals' annual salary and principals' total annual family income. The majority group had many principals who earned an annual salary between Cr\$31.000 and Cr\$90.000, while two-thirds of the deviant group either earned between Cr\$30.000 and Cr\$10.000 or earned less than Cr\$10.000.

39. The principals of the majority group and the principals of the deviant group differed in their total annual family income. One-half of the former had a total family income from Cr\$111.000 to more than Cr\$230.000. Only one-third of the latter earned between Cr\$151.000 and Cr\$170.000.

40. The schools in both groups were located in urban areas, in which the average estimated composition of the population was 70 percent blue-collar and 30 percent white-collar workers.

41. The majority group and the deviant group were different with respect to *technical/administrative personnel turnover*. The deviant group did not have any turnover in this area for the period 1974-1976. In both groups the highest concentration of teacher turnover was for reasons other than those tabulated. Almost one-half of the

principals of the majority group had an absenteeism rate of 51 to more than 120 days. The absenteeism of each of the principals of the deviant group was less than 50 days.

43. The majority group and the deviant group differed with respect to their *residence in relation to the school*. Over one-third of the majority principals resided in the school community; all of the deviant principals resided in the community.

44. Most of the principals in both groups drove their own cars to and from school. In both groups a small number lived within walking distance. Public transportation was used only by principals in the majority group and, indeed, by a very small number.

45. All the schools in both groups were located close to the offices of DERE/NSP. However, as to the proximity of the schools to the offices of SEC, the two groups gave different responses. In the majority group most of the principals agreed that their schools were located close to these offices, while all the principals in the deviant group reported that their schools were located far from the offices of SEC.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

A review of the problem is presented in this chapter along with a summary of the procedures employed to collect the data, a summary and discussion of the findings, conclusions, and recommendations for further investigation.

Summary

The study aimed at describing the decision-making process in a sample of selected *complexos escolares*, with particular attention to strengths as well as weaknesses.

Four major research questions were considered for this study. They were the following:

1. *Do principals consider any specific decision-making model during the decision-making process?*
2. *In which areas of school concerns do principals have authority to make decisions; and what is the participation of the staff in the decision-making process?*
3. *Is there any kind of information or advice network giving input to the principals in the decision-making process for the specific areas of school concerns?*
4. *Are there basic differences between principals with respect to certain selected personal-social and environmental variables.*

Design of the Study

The study was designed to explore the decision-making process in order to gain an understanding of the dynamics of the process in certain school matters, i.e., curricula: *methods and textbooks*; personnel: *evaluation and hiring*; finance: *budgeting and allocation of financial resources to specific areas*; students: *evaluation and promotion*; community: *parents and relatives*. It was also intended to examine basic differences between principals with respect to specific personal-social and environmental factors. In addition, the study sought to determine whether decision-making has been decentralized at the level of the *complexos escolares*.

Specialists of the Diretoria Executiva of the Secretariat of Education and Culture selected six *complexos escolares* that exhibited diversity in the specific personal-social and environmental variables mentioned in Chapter I.

The data-gathering technique was the semistructured individual interview, and it was administered to the 22 principals during the scheduled school hours. Tape recording was employed for recording the interviews.

The data were arranged in 46 tables, analyzed, and summarized in terms of percentages. Different groups of schools were classified, comparing the data with the theoretical concepts--the rational-comprehensive, incrementalist, and mixed-scanning approach to decision-making

The personal and environmental variables were examined for a better understanding of the population.

Discussion of Research

Consideration of specific decision-making models in the decision-making process. The majority of the principals did not consider alternatives in the decisions they made. A small number of the principals did, chiefly for *curricula--methods*, *personnel--evaluation*, and *students--evaluation* (see Table 1, Appendix C).

A majority of the principals did not think of other possible ways of reaching the same decisions. A small number of principals did (see Table 2, Appendix C). The proportions here substantiate the findings set out in Table 1, about the principals' consideration of alternatives. Indeed, there was great consistency between the principals' answers to the questions separately tabulated in Table 1 and Table 2.

The number of principals who explained why they considered the decision they made was important was higher than the number of those who were undecided. The area *curricula--methods* was an exception: here the undecided were the more numerous. The interviews and Table 3 (Appendix C) indicate that the criteria principals used in labeling a decision important or nonimportant were

mainly the results of the decision. Only a relatively small number reported that they used values as criteria for judging whether a decision was an important one, and this only in *personnel--evaluation* and *community--parents and relatives*. An extremely small number reported that both the value and the results were used as criteria for judging decisions, and they report this only in the area of *students--evaluation* (see Table 3, Appendix C).

Students--evaluation was an area where principals did not consider negative consequences when they make decisions. This was reported by all the principals who believed that they were responsible for this decision (see Table 16, Appendix D). For the areas of *curricula--methods*, *personnel--evaluation*, *finance--allocation of financial resources to specific areas*, *students--promotion*, and *community--parents and relatives*, principals did consider negative consequences. However, in all the areas above, those who did not were more numerous than those who did. But in *personnel--evaluation*, one-half of the principals reported that they considered negative consequences, and the rest reported that they did not. In the areas of *curricula--methods* and *students--promotion*, the principals who considered possible negative consequences were more numerous than in the areas of *finance--allocation of financial resources to specific areas* and *community--parents and relatives*. Indeed, the area of *community--*

parents and relatives was the one with the fewest principals considering possible negative consequences (see Table 4, Appendix C).

The principals' responses about the consideration of negative consequences (Table 4) were very similar to their responses about the consideration of unanticipated results (Table 5).

In the areas of *curricula--methods* and *students--evaluation*, the principals reported that the decision made was either successful or partially successful. Principals who reported the decision successful were more numerous than those who reported partial success. The reasons the principals gave for believing a decision successful can be seen in the excerpts from the interviews, where the principals speak of improvement in the students' academic achievement and improvement in the teacher's consideration of student needs.

In general, the principals considered successful their decisions in the areas of *personnel--evaluation and hiring* and *finance--allocation of financial resources to specific areas*. In *personnel evaluation* and *personnel--hiring*, only a small number of principals indicated otherwise. In both *personnel evaluation* and *finance--allocation of financial resources to specific areas*, a small number was undecided.

The interviews showed that the reasons for believing that a decision was successful in *personnel--evaluation* were, basically, that teachers were becoming more aware of their strengths as well as their weaknesses. In *personnel--hiring*, a decision was called a success because teachers had been hired as the need arose, and adequate staffing helps the students. Finally, in the decisions about *finance--allocation of financial resources to specific areas*, a typical reason was that students who were malnourished have been helped through the school feeding program.

In the area of *students--promotion*, a small number of the principals were undecided about the success or failure of the decision. However, those who reported either the total or the partial success of the decision were more numerous than those who were undecided. The reasons for regarding the decision a success had to do with the level of learning the students were achieving since their needs were being considered.

In the area of *community--parents and relatives*, the decision was considered successful; only a few principals either reported that the decision was not successful or were undecided about its success. The interviews showed that the reason for considering the decision a success was that parents have been helpful in making the school understand their children better.

In the area of *curricula--textbooks*, almost one-half of the principals reported that the decision was either wholly or partially successful. Over one-fourth reported that the decision was not successful or that they could not decide whether it was successful or not. It would seem that in general this decision was not considered a particular success. The reasons given were that the textbooks did not come to the students at the beginning of the school year, and that sometimes the books were not appropriate for the students' needs (see Table 6, Appendix C).

With respect to *curricula--methods* and *finance--allocation of financial resources to specific areas*, a few principals indicated that the decisions were the result of emergencies. The difficulties the principals encountered were related to the teachers in the former situation and to the students in the latter. In the areas of *students--evaluation* and *students--promotion*, the principals indicated that the difficulties were related to the students' academic achievement. In *community--parents and relatives*, the difficulty was related to a decree of the political authority (see Table 7, Appendix C).

The data indicated that principals make decisions as a response to clearly identified problems. This was true for the areas of *curricula--methods*, *personnel--evaluation*, *finance--allocation of financial resources*

to specific areas, *students--evaluation*, *students--promotion*, and *community--parents and relatives*, in which the principals reported that they were responsible for making decisions. In the areas of *personnel--evaluation* and *students--evaluation*, a few principals reported that the decisions they made were not a response to clearly identified problems. The problems identified by the principals, as Table 8 (Appendix C) shows, were in the categories of "students," "teachers," or "other." With respect to *curricula--methods*, it is worth noting that more principals reported that the problem was related to teachers than to students. In the areas of *finance--allocation of financial resources to specific areas*, *students--evaluation*, and *students--promotion*, the problems were related to student affairs. An exception was found in the area of *students--evaluation*, where a very few principals said the problem was related to the teachers. In the area of *community--parents and relatives*, more problems fell into the category of "other" than were attributed to the students. In *personnel--evaluation*, those principals who reported that they identified the problem before making the decision said that the problem was related to the teachers (see Table 8, Appendix C).

The data indicated that principals took account of relevant factors in the decision-making process for

the areas of *curricula--methods*, *personnel--evaluation*, *finance--allocation of financial resources to specific areas*, *students--evaluation*, *students--promotion*, and *community--parents and relatives*. The factors they took into account seemed to be the outcomes of the decision. This factor was reported as the most relevant one by a majority of principals. An extremely small number reported that they took into account values and beliefs in the areas of *curricula--methods* and *personnel--evaluation* (see Table 9, Appendix C).

In all the five areas of school concerns where decisions were selected, principals reported that they used criteria in considering decisions. "Anticipated results of the decision" was the criterion most cited by the principals in determining whether a decision was good or not. "Agreement on objectives" was the next most cited criterion. "Agreement on the decision as such" appeared to be the criterion least used. Indeed, this criterion was reported only in three of the five areas of school concerns, *viz.*, *personnel--evaluation*, *students--evaluation*, and *community--parents and relatives* (see Table 10, Appendix C).

In all areas the principle of "defining the objectives before the formulation and examination of the decision" seemed to be the one most employed by principals in making decisions for the schools. This action suggested that principals were aware that they had to set goals and

objectives, and then to formulate pertinent processes and procedures to achieve them (see Table 11, Appendix C).

The principals seemed to use different criteria in analyzing decisions in different areas. The "numbers of persons preferring the decision," seemed to be the criterion most used for judging the worth of the decisions in *curricula--methods*, *finance--allocation of financial resources to specific areas*, *students--evaluation and promotion*, and *community--parents and relatives*. An exception was the area of *personnel--evaluation*, where the "principals' own conviction" appeared to be the criterion most used. It is worth noting that in the area of *students--promotion*, the respondents who were undecided were almost as numerous as those who reported that they did have standards for determining the value of the decision. The data suggest that the criterion used by principals to determine the value of the decision was the "agreement of the majority of the staff members on the decision per se" (see Table 12, Appendix C).

The data indicate that the main criterion the principals utilized to anticipate a desired result in the areas of *curricula--methods* and *personnel--evaluation* were benefits to the staff.

Finance--allocation of financial resources to specific areas was the only area where principals reported

that benefits to students were the main criteria they used to judge the decision good.

In the areas of *students--evaluation*, benefits to teachers seemed to be emphasized more than benefits to students, when principals considered the anticipated results of the decision. On the other hand, in the area of *students--promotion*, benefits to students seemed to receive more emphasis than benefits to teachers.

In the area of *community--parents and relatives*, the benefits to parents and relatives was the criterion most used by principals. The criterion next most frequently cited was benefits to teachers. Benefits to the staff were cited least (see Table 13, Appendix C).

The data also indicate that there were many principals who did not discuss the decision-making process with staff members. The few principals who reported that they did discuss with staff members followed no specific model or school of thought. In the interviews a very few principals suggested that past experience and a logical line of reasoning were the criteria they used when they made decisions (see Table 14, Appendix C).

For the school year of 1976, the principals prioritized the groups of "students," "community," "school," and "teachers." Students were given first priority. Principals seemed to be concerned with raising the academic

level of the students and also understood that the students were the major components of the school. Teachers were given the lowest priority. Those who gave this group a high priority indicated that they were concerned to have better qualified teachers. The school also received a low priority rating in the overall planning for the school year of 1976. Those principals who gave the school the highest priority rating were specifically concerned with up-grading physical aspects of the school plant. The community came in second in the priority rating. The interviews indicated that an effort was being made to foster a better relationship between school and community (see Table 15, Appendix C).

Decentralization of the decision-making process and participation of the staff of the school in the process. The responses showed that the SEC is the locus of authority for decisions relating to *curricula--textbooks, personnel--hiring, and finance--budgeting*. On the other hand, the staff of each school was responsible for decisions in the areas of *curricula--methods, personnel--evaluation, and finance--allocation of financial resources to specific areas*. With respect to *students--evaluation and promotion, and community--parents and relatives*, principals were divided in identifying who was responsible in these areas (see Table 16, Appendix D).

The data indicate that principals were involved to some degree in seven aspects of the five general areas, i.e., *curricula--methods*, *personnel--evaluation and hiring*, *finance--allocation of financial resources to specific areas*, *students--evaluation and promotion*, and *community--parents and relatives*. In two of these five general areas, viz., *students--evaluation and promotion* and *community--parents and relatives*, there seemed to be a degree of disagreement among principals about who was responsible for making decisions.

In any event, the mode and the degree of involvement of the principals differed from one area to the other. For example, involvement through "group discussion alone" was highest in the areas of *curricula--methods*, *personnel--evaluation*, *students--promotion and evaluation* (see Table 17, Appendix D).

In general, principals involved different members of their staff in different school matters according to their expertise. Teachers and vice-principals were more involved in the area of *curricula--methods* than were pedagogical coordinators. School counselors had minor roles to play in the decision-making process.

In the area of *personnel--evaluation*, vice-principals and pedagogical coordinators were more involved than were teachers and the supervisors of DERE.

In the area of *finance--allocation of financial resources to specific areas*, the teachers and clerical workers had the smallest involvement. Vice-principals were the most involved. Pedagogical coordinators and school counselors were involved to a lesser extent than were vice-principals.

In the area of *students--evaluation*, teachers were the most involved and the vice principals less. Pedagogical coordinators were involved least.

Students--evaluation and promotion and community--parents and relatives were areas where principals were not in agreement about whether or not decision-making authority was centralized or decentralized. Those who reported that they made the decision about *students--evaluation*, said that teachers had the most influence and then the vice-principals and the pedagogical coordinators. The school counselors were not involved at all.

With *students--promotion*, vice-principals were more involved than teachers and the pedagogical coordinators. The supervisors of DERE were the least involved.

In the decisions relevant to *community--parents and relatives*, teachers and vice-principals shared varying degrees of involvement. The school counselor had a small role in this decision, and the pedagogical coordinator was the least involved (see Table 18, Appendix D).

Creative ideas of the staff have been used by the principals in different areas of school concerns. However, in the area of *personnel--evaluation*, the highest number of principals reported that they did not consider creative ideas of the staff. In fact, the interviews seem to show that these principals did not involve staff members in this particular decision (see Table 19, Appendix D).

"Discussion, analysis, and implementation" (of suggestions which were given by members of the staff) were the ways most used by principals to incorporate the ideas of staff members, mostly in the areas of *curricula--methods*, *personnel--evaluation*, *finance--allocation of financial resources to specific areas*, and *students--evaluation* (see Table 20, Appendix D).

Staff members were generally encouraged to express opinions. In the area of *curricula--methods*, however, this was not so. And the principals were divided about whether the staff was reluctant to express their views on this issue.

Ideas of the staff had been overridden, the principals reported, in only two areas: *personnel--evaluation* and *community--parents and relatives*. But even in these areas the principals who reported that they accepted the ideas of the staff members were more numerous than those who reported that they did not (see Table 21, Appendix D).

Information and advice network giving input to the principals in the decision-making process. The principals who reported that they did not receive any external input in the decision-making process were more numerous than those who reported they did. This distribution prevailed in the five general areas in which principals reported that either they or the staff were responsible for decisions.

A small number of principals seemed to be influenced by nonprofessionals who were not members of the staff. Indeed, the number of professionals who influenced the principals in their decisions was bigger than the number of nonprofessionals. Nonprofessionals influenced the decisions related to *personnel--evaluation, students--promotion, and community--parents and relatives*. Those principals who reported the influence of nonprofessionals did not specify who the nonprofessionals were (see Table 22, Appendix E).

Principals who went to "professionals of the lower echelon" of the educational hierarchy for guidance related to the decision-making process were slightly more numerous than principals who sought guidance from "professionals in the upper echelon." The number of principals who sought advice from professionals in both the upper and lower echelons was rather small, when compared to the number of those who sought advice from one group or the other (see Table 23, Appendix E).

The coordinators and the supervisors of DERE/NSP were the "professionals" of both the "upper" and "lower echelons," to whom the principals went for information or advice. Those principals who sought advice from professionals either in the lower or in both lower and upper echelons reported that vice-principals and pedagogical coordinators were those usually sought. The principals who reported that they sought advice from lower echelon professionals and principals who reported both upper and lower echelons mentioned that they sought advice from teachers and counselors (see Table 24, Appendix E).

A large number of principals discussed administrative problems more frequently with "professionals in the lower echelon" of the educational hierarchy than with "professionals in the upper echelon" (see Table 25, Appendix E).

Of the "upper echelon" of the educational hierarchy, coordinators of DERE/NSP were the ones whose expertise was most frequently sought. The counsel of vice-principals and pedagogical coordinators was next (see Table 26, Appendix E).

Differences between principals with respect to certain selected personal-social and environmental variables. The number of principals who obtained their degree through the "abbreviate licenciante" program was equal to the number of those who obtained the baccalaureate through

the three- or four-year college course. (The "abbreviate licenciante" is a concentrated program of study offered by the university, to prepare teachers for the baccalaureate in education in a shorter period of time [i.e., 8 to 12 months] than normally would be necessary. It is a remedial decision and an example of the incrementalist approach since it is geared to alleviate a present, concrete social issue.)

Many of the principals obtained their baccalaureate after 1974, and because this further education was required by their position (see Table 27, Appendix F). (Since the enactment of Law 5692 of August 1971, principals have been required to have more formal training than in the past.)

The age of the principals ranged between 26 and 55. The majority of them were in the age cohort of 36-45 (see Chapter IV, page 118).

A large number of principals had previous experience as teachers, and this experience ranged between 10 and 15 years. At their present school, almost all of the principals had fewer than five years of teaching experience. More than one-half of the principals had 5 to 15 years of experience of being a principal. In the school where they were now principal, the number of principals who had from 5 to 10 years of experience there, was the same as the number of those who had fewer than 5 years of experience

(see Table 28, Appendix F). (One *complexo escolar* was established in 1972, and the others in 1974 [see Chapter II, page 16]). Thus they all were less than five years old when this study was initiated. The majority of the present principals had been principals of the constituent schools and were asked to remain principals in the *complexos escolares*. This is the reason why the majority of principals could report that they had more than five years of experience in the current position.)

"Meetings" were the chief avenues by which principals kept up with current knowledge in the field of education. "Workshops" were the next most popular mode of improving their professional qualifications. Table 30 indicates that 8 of the 18 principals did not take advantage of any mode but meetings. As to "books" read by the principals, Table 30 indicates that one principal read more than 15 books while five did not read any in 1974-1976. A total of 56 books were read by all the principals. As to the number of "educational journals" subscribed to by principals, 12 principals did not subscribe to any educational journal while 6 had subscriptions for a period of 1 to 6 years.

Ten of the principals were members of educational associations. Five of the 10 principals had been members of these associations from 11 to more than 20 years, while

the remaining 5 principals had been members of from 1 to 10 years.

About *principals' attitude, motivation, and expectations toward the experimental program*, the data suggest that there was a high positive feeling among the principals (see Table 30, Appendix F). The interviews indicated, however, that channels of information were not fully operative among the principals.

The *principals' annual salary* fell into four categories:

1. Less than Cr\$10.000;
2. Cr\$10.000 to Cr\$50.000;
3. Cr\$51.000 to CR\$90.000; and
4. Cr\$111.000 to Cr\$130.000.

The principals' annual salaries vary according to the size of the school population, level of the school, category of the principal in the public service, and his/her formal qualifications.

The *principals' annual family income* fell into the five following categories:

1. Cr\$10.000 to Cr\$30.000;
2. Cr\$31.000 to Cr\$90.000;
3. Cr\$111.000 to Cr\$170.000;
4. Cr\$191.000 to Cr\$210.000; and
5. More than Cr\$230.000.

When a principal's family income is added to his/her annual salary, there was (in some instances) a high increase in the annual income of the principal. To put the matter another way, although almost all of the principals earned an annual salary which ranged from less than Cr\$10.000 to Cr\$90.000, when their family income was added to the salary, two-thirds of them rose into the range of Cr\$71.000 to more than Cr\$230.000 (see Table 31, Appendix F).

All the schools were located in urban areas. The estimated composition of the communities in which these schools were located, however, varied from 100 percent white-collar workers to 100 percent blue-collar workers. Nearly one-half of the schools were located in areas in which there was an estimated 70 percent blue-collar and 30 percent white-collar workers (see Table 32, Appendix F).

Turnover of *technical/administrative personnel and teachers* was not high.

Approximately one-half of the principals were absent for periods ranging from 51 to more than 130 days (see Table 33, Appendix F). The school year is only 180 days long.

A majority of the principals do not reside in the communities where their schools are located; however, the replies indicated that the journey to the schools was facilitated by the fact that a large number of principals

had their own car or lived within walking distance to the school (see Table 34, Appendix F).

All of the schools were located within easy access to the offices of DERE/NSP, and a large number were located in areas of easy access to the offices of SEC. Concepts like "easy access" and "not very easy access" are, of course, subjective; and a great number of principals judged that their schools were located within easy access either of the offices of DERE/NSP or SEC, considering the "variety of means of transportation" and/or "good roads" (see Table 35, Appendix F).

The deviant group compared to the majority group.

Table 36 indicates that the proportion of the majority group and of the deviant group of principals who obtained their baccalaureate through the "abbreviate licenciante" program and the proportion who obtained it through the three-year or four-year college course did not differ greatly.

All the principals of the deviant group obtained their baccalaureate after 1974, while the majority group had four principals who obtained their degree before this year. Of the principals in the deviant group, only one reported that this further educational qualification was not required by his/her job position. Three principals in the majority group said the same (see Table 36, Appendix G).

Principals of the deviant group were in the age range of 36-45. A large percentage of the majority group were in this same age cohort, but a very small number of them were between 26-35, and over one-fourth were between 46-55 (see Table 37, Appendix G).

One of the three principals in the deviant group had less than 10 years of teaching experience. Two of the three principals in the deviant group had 15 to 20 years of experience. A high percentage of the principals of the majority group had 10 to 15 years of experience. The principals of both groups had fewer than five years of teaching experience at the present school. Two-thirds of the principals of the deviant group had experience as a principal that ranged from 11 to 15 years. More than one-half of the principals of the majority group had experience of 5 to 10 years. Two-thirds of the deviant group had more than 10 years of experience in the current school, while the principals in the majority group were distributed evenly between those who had fewer than five years and those who had experience of between 5 and 10 years (see Table 38, Appendix G). Although one *complexo escolar* was established in 1972 and the others in 1974 (see page 16), only a small percentage of principals of the constituent schools were transferred to other schools or to other administrative positions when the *complexos*

escolares were constituted. Hence principals in both groups could indicate that they had experience of more than five years in their present school, even though the *complexos escolares* had been in existence for only three or five years.

Meetings were the main activities by which both the majority group and deviant group up-graded their knowledge of current events in the field of education. The principals of the majority group went to more meetings than the principals of the deviant group. Secondly, the principals of both groups attended workshops to keep pace with current knowledge. But, eight of the principals of the majority group went to no workshops during the period of 1974-1976. Each of the principals of the deviant group went to some workshops--to three, on the average.

The number of books which were read by the principals during the period 1974-1976 was on the average equal for the principals in both groups. A high percentage of principals in both groups read in the range of 1 to 5 books during the 1974-1976 period.

The majority group had a large number of principals who did not subscribe to any educational journals; the deviant group had a high percentage of principals who subscribed to between 1 and 3.

Ten of the 18 principals in the majority group were members of educational societies, while only one of the three principals of the deviant group was (see Table 39, Appendix G).

Both the majority group and the deviant group reported that they had high positive attitudes and high motivation toward the experimental program. All the principals in the deviant group had high expectations from the program; in the majority group there was a small number who had low expectations for the program (see Table 40, Appendix G).

In the deviant group, the principals reported that communication among principals was either informal or non-existent. So did the greater number of the majority group. However, in this group, nearly one-half reported that there was formal communication among the principals as well.

Table 42 indicates that with regard to the principals' annual salary, there were differences between the two groups. The majority group had a concentration of principals, i.e., approximately three-fourths, who earned an annual salary of Cr\$31.000 to Cr\$90.000 while the deviant group had a concentration of principals who earned less than Cr\$30.000 and even less than Cr\$10.000.

In total annual family income, there were still further differences between the two groups. One-half of

the majority group were in the range of Cr\$111.000 to more than Cr\$230.000. On the other hand, only one of the three principals in the deviant group was in the Cr\$151.000 to Cr\$170.000 range (see Table 42, Appendix G).

Table 43 indicates that all the schools in both groups were in urban areas. The estimated composition of the communities in which the schools of both groups were located did not differ significantly. In both cases the greater number of the schools were in communities where the estimated composition was 70 percent blue-collar and 30 percent white-collar workers (see Table 43, Appendix G).

Table 44 shows that there were great differences between the majority group and the deviant group in *technical/administrative personnel turnover*. The majority group had a one-fourth turnover while the deviant group had none for the 1974-1976 period.

With respect to *teacher turnover*, there was a concentration of turnover for reasons other than those tabulated, in both groups. The majority group had a higher proportion of teacher turnover altogether.

With regard to *principals' absenteeism*, the majority group and the deviant group were different. Two of the three principals of the deviant group were absent fewer than 30 days, and one of the three was absent in the range of 41 to 50 days. In the majority group, almost one-half of

the principals were absent from 51 to more than 120 days (see Table 44, Appendix G).

All the principals of the deviant group resided in the communities where their schools were located; only something over one-third of the principals of the majority group did so. Both groups had a large number of principals who had their own car. A small number from both groups lived within walking distance (see Table 45, Appendix G).

All the schools in both groups were located within easy access to the offices of DERE/NSP, as Table 46 indicates.

About the proximity of the schools to the offices of the SEC, however, the two groups differed greatly. The majority group had a large number of principals who reported that their schools were located within easy access to these offices. All of the deviant group, on the other hand, reported that their schools were located where access to the offices of the SEC is difficult (see Table 46, Appendix G).

Conclusions

This study is an exploratory one, and it describes the dynamics of the decision-making process among principals of selected public elementary schools (*Primeiro Grau*). Four research questions are formulated and important aspects of

the process are described. Because of the way the sample schools were selected, the results are not generalizable. Indeed, the data deals with a small sample of principals in Recife and thus perhaps cannot be generalized to other regions of Brazil.

This study does not underscore specific and definite results. Nevertheless, the researcher has attempted to formulate conclusions from the research questions. And these conclusions could generate ideas for further research.

Reviewing the principles on which the following decision-making models are built, viz., (1) the rational-comprehensive; (2) the incrementalist; and (3) the mixed-scanning, it appears that the principals who are part of this study tend to follow, if any, the incrementalist approach in the decision-making process for the selected areas of school concerns. Here are some specific conclusions:

1. The principals consider small number of alternatives in the decision-making process; hence, the analysis of the decisions is very limited.

2. Analysis of the decisions are restricted to "anticipated results" or "outcomes"; thus they are not comprehensive in the sense that every important factor be taken into consideration.

3. The principals do not consider negative consequences; hence they tend to expect that the desired results are always attainable.

4. The principals are of the opinion that the agreement of the majority of the staff members on the decision per se is the criterion for a good decision.

5. The principals use past experience and logical lines of reasoning as the bases for making decisions.

6. In general, decisions are made to alleviate problems, instead of being oriented toward future goals and objectives.

The data suggest that the decentralization of the decision-making process has not taken place as yet in some areas of school concerns at the level of the schools of the *complejos escolares*. However, in the areas where principals are free to make decisions, the staff is involved. About this, the following specific statements can be made:

7. SEC is responsible for decisions in the areas of *textbooks, hiring personnel, and budgeting*.

8. DERE/NSP has minor authority in the decision-making process of the areas of school concerns surveyed.

9. Who has responsibility in the areas of *students--evaluation and promotion and community--parents and relatives* is not well defined.

10. Principals are responsible for decisions in the areas of *curricula--methods, personnel--evaluation, and finance--allocation of financial resources to specific areas.*

11. Principals involve staff members in the decision-making of the different areas of school concerns, according to their area of expertise.

The data suggest that internal groups give input to the principals in the decision-making process. In general, external groups are not part of the machinery of decision-making. However, a small percentage of the principals are influenced by external groups. About this issue the following specific conclusions could be drawn.

12. Professionals as an external group have more influence in the decisions made than do nonprofessionals.

13. The principals are more influenced in the decision-making process by professionals in the lower echelon of the hierarchy than by professionals in the upper echelon.

14. Coordinators of DERE/NSP are the professionals in the upper echelon whose advice (about the administrative process) the principals seek.

15. Vice-principals, pedagogical coordinators, and other principals are the lower echelon professionals whose advice (about the administrative process) the principals seek.

The conclusions drawn from the major data for the three aforementioned research questions indicate that there appears to be similarities in the decision-making process of the principals of each school of the *complexos escolares*. To put the matter another way, the principals, in general, follow the same process to arrive at decisions in the areas of school concerns selected.

With respect to certain selected personal-social and environmental variables discussed for research question 4, the data seem to suggest that there are differences among the principals of this sample. The differences are as follows:

16. A large number of principals in this selected group of schools are holders of the baccalaureate degree because it is a requirement of their job position. However, the number of principals who obtained the degree through the "abbreviate licenciante" program is equal to the number of those who obtained it through three or four years of college study.

17. Meetings and memberships in educational societies are the avenues by which principals keep pace with current knowledge. Nevertheless, principals differ in the extent to which they use these activities.

18. The principals differ in annual salary. When the principals' family income is added to their annual

salary, there is (in some instances) a large increase in their annual income.

19. Absenteeism of the principals of these schools is, in general, high; however, there are marked differences between individual principals.

20. In general, the schools are situated in areas affording easy access to the offices of DERE/NSP. To the offices of SEC, some schools have easy access and others do not.

These conclusions, which were derived from research question 4, could be used to enhance further research on the relevance of these variables on the decision-making process.

With respect to the deviant cases, the data seem to suggest that some personal-social and environmental variables may affect the behavior of the principals. Concerning this matter, the following points are highlighted:

21. Differences in some personal-social variables, viz., degree status, age, attitude, motivation, and expectations toward the experimental program, appear not to have any relationship to the decision-making behavior of this group of principals. An analysis of the data indicates that the two groups are similar in these respects.

22. The principals' professional experience in the field of education in terms of (1) teaching experience in

general, (2) principalship experience in general, and (3) principalship experience in the current position appear to be associated with the modus operandi of principals in the decision-making process. The principals of the deviant group have more years of professional experience than the majority group.

23. Professional activities, i.e., meetings, workshops, seminars, affiliation to educational societies, and subscription to educational journals, seem to be related to differences in the principals' behavior in the decision-making process. The majority group are more involved in these professional activities, except for subscription to educational journals, where the deviant group are more involved.

24. It appears that communication flow within the team of principals seems to be related to their behavior in the decision-making process. About one-half of the principals of the majority group report that formal communication does take place among them, while this sort of communication is reported not to take place in the deviant group.

25. The majority group earns more than the deviant group, both in salary and total family income. These variables may be related to the behavior of the principals.

26. The character of the neighborhood in which the schools are located, the means of transportation used by principals to get to schools, and the proximity of the schools to the DERE/NSP are similar for both groups. They do not appear, therefore, to be associated with differences in the principals' decision-making behavior.

27. It seems that the frequency of staff turnover may to some degree disturb a school's organization and, in all probability, the decision-making process also. The groups differ specifically in technical/administrative personnel turnover. The deviant group did not have any turnover in this area during the 1974-1976 period. In the same period, one-fourth of the technical/administrative staff of the majority group turned over.

28. Absenteeism among principals could seriously affect the overall effectiveness in the decision-making process of their schools. The effect on the majority group would be greater, since about one-half of the principals in it were absent from 51 to more than 120 days. The deviant group were each absent no more than 50 days, and two-thirds significantly fewer.

29. All three principals of the deviant group live in communities where their schools are, but in the majority group, eleven of the eighteen principals do not live within the community.

30. The majority group has a large number of principals whose schools are located in areas of easy access to the offices of SEC. However, the schools of the deviant group are located where access to these offices is difficult.

Recommendations

A number of particular questions related to the decision-making process have been raised in this study. It would seem worthwhile to pursue them further. Further studies should be undertaken, in the hope of generating testable hypotheses. When such hypotheses are tested, they could form bases for a better understanding of the decision-making process, and they could help in the improvement of this process at the elementary school level (*Primeiro Grau*). On the basis of the conclusions from the research questions, the following further research is recommended:

1. On the decision-making process at elementary school level (*Primeiro Grau*):
 - about principals' consideration of values, outcomes, and anticipated results of decisions;
 - about principals' consideration of alternatives when they make decisions in various school matters;

- about principals' criteria for evaluating how effective a decision may be; and
 - about principals' application of any specific decision-making model when they make decisions in various school matters.
2. On decentralization of the decision-making process, with particular attention to:
 - DERE/NSP's authority to make decisions in the various areas of school concerns; and
 - principals' authority for making decisions in the areas of student affairs and the community's participation in the schools' activities.
 3. On the influence of staff members in the decision-making process, according to their area of expertise, with particular attention to the counselors and librarians.
 4. On the influence of the supervisors of DERE/NSP in the decision-making process of the schools.
 5. On the effect of meetings as the professional activity which contributes the most to the upgrading of the principals, and improving their current knowledge in the field of education.
 6. On the relationship between the absenteeism of principals and the decision-making process.

7. On the influence of personal-social variables on principals' decision-making behavior.
8. On the decision-making process of the deviant group, in the various school matters.
9. On a much larger sample, to include principals of other elementary schools (*Primeiro Grau*).

Implications

This exploratory study has brought up many issues that have implications for those involved with Brazilian elementary education (*Primeiro Grau*), mainly with respect to the *complexos escolares*.

The public elementary school system of the State of Pernambuco is faced with frequent changes and innovations in order to keep pace with the demands of the educational and social reforms of the country. Public school administrators are even now making decisions about short- and long-range planning to accomplish the goals of these innovations. Short-range planning must be aimed at reaching the ultimate goal of the overall planning. Hence, remedial decisions are made toward the achievement of future goals, which should form bases for fundamental decisions. This implies that public administrators should support and assist those who are involved in such innovations, in this case the *complexos escolares*. If there is no formal support

and assistance, there will be no continuity. Without continuity, the investment that is made in these innovations is lost for two main reasons.

(1) The human investment. People become skeptical about innovations and, therefore, although they demonstrate apparent enthusiasm, they become suspicious about the whole enterprise.

(2) The financial investment. The financial resources allocated for these innovations are large commitments, in proportion to the state's overall budget. Thus, expenditures should be made carefully, so as to achieve the maximum benefits for development of the human potential, which is necessary for the overall growth of a nation.

Another implication of this study is that the introduction of any change in the school system entails adaptation of the roles of those involved in the system. So, public administrators may expect an increase in decision-making at the school level, and a demand for specialized consultants at the Secretariat of Education and Culture.

Finally, the findings of this study also imply that public administrators must be aware of the process of choice, and recognize the strengths and the weaknesses of the approaches or models they use in the decision-making process in the technical and administrative areas. The adoption of

decision-making model almost always means modification to suit the situation and the local needs.

APPENDICES

APPENDIX A

LETTERS OF INTRODUCTION

Recife
October 8, 1976

His Excellency
José Jorge de Vasconcelos Lima
Secretary of Education and Culture
Recife

Mr. Secretary:

I, Alayde Gouveia Machado, specialist in Educational administration, class V, category A, NU-6 of this Secretariat, member of the technical team of the Coordinating Directorship, currently on leave to pursue doctoral studies at Michigan State University, U.S.A; also professor of the Department of Educational Planning and School Administration at the Center for Education of the Federal University of Pernambuco, present the following:

- Having reached the final part of my program of studies, I must write and defend my doctoral dissertation about the decision-making process in some schools of the state network of elementary education (*1^o grau*) in the capital and the interior.
- I intend to carry out this study in six school complexes of the State of Pernambuco: three in the capital and three in the interior.
- The importance of the study for education in Pernambuco hinges on the fact that the State will be progressing toward better functioning of the elementary education (*1^o grau*) during the years to come, with projects to adapt the current educational network. Since the school complexes comprise one of these adaptations, it will be opportune to study, among other things, the dynamics of the decision-making process in these schools.
- This research will above all make it possible to describe in depth and detail the dynamics of the decision-making process in the selected school complexes, and at the same time attempt

to determine the basic differences between principals with respect to certain personal, social and environmental variables.

- This will benefit the state educational system through the recommendations that can proceed from a study of this nature, principally because of the scientific structure that supports it.

Thus I would like to request your excellency's permission regarding access to the school complexes, after a selection has been made by this Secretariat. This permission will enable me to interview the principals with the aim of gathering data needed for the development of the dissertation.

Respectfully yours,

Alayde Gouveia Machado

SECRETARIAT OF EDUCATION AND CULTURE
EXECUTIVE DIRECTORSHIP
Pernambuco

Document No. 1019/76

Recife
October 11, 1976

Mr. Coordinator:

We present to you the specialist in Educational Administration, category "A", Alayde Gouveia Machado, member of the technical team of the Coordinating Directorship of this Secretariat, and also professor of the Department of Administration and Educational Planning at the Center for Education of the Federal University of Pernambuco.

Professor Machado is at the final stage of her program of studies--namely, the phase of writing and defending her doctoral dissertation. Her dissertation is concerned with the decision-making process in the elementary (*1^o grau*) public schools in the capital and interior of the State.

The *complexos escolares* (school complexes) of this Nucleus of Pedagogical Supervision were selected among others, as a sample of this universe. Your collaboration in facilitating the access of professor Alayde Gouveia Machado to the school complex will be indispensable, and without it this research cannot be carried out. It would be opportune to stress that the answers given by the principals of the schools will be kept strictly confidential.

The importance of this study for education in Pernambuco hinges on the fact that the State will be progressing toward the better functioning of the elementary (*1^o grau*) education program during the years to come, with projects to adapt the current educational network. Since the school complexes comprise one of these adaptations, it will be opportune to study, among other things, the dynamics of the decision-making process in these schools.

This research will above all make it possible to describe in depth and detail the dynamics of the decision-making process in the selected school complexes, and at the same time attempt to determine the basic differences between principals with respect to certain personal, social, and environmental variables.

This will benefit the state educational system through the recommendations that can proceed from a study of this nature, principally because of the scientific structure that supports it.

The technique employed in this study will be the interview; therefore we are attaching a list of the areas of school administration that the interview will be about.

Hoping to count on your valuable attention and collaboration in this matter, I remain

Yours truly,

Lucilda Jordão De Oliveira
Director

SECRETARIAT OF EDUCATION AND CULTURE
EXECUTIVE DIRECTORSHIP
Pernambuco

Circular Letter No. 94

Recife
October 11, 1976

Mr. Principal:

We present to you the Specialist in School Administration, Class V, category "A", team member of the Coordinating Directorship, Alayde Gouveia Machado, of this Secretariat, currently on leave to pursue doctoral (Ph.D.) study at Michigan State University, and also Professor of Department of Educational Planning and School Administration of the Federal University of Pernambuco.

Professor Machado is at the final stage of her program of studies--namely, the phase of writing and defending her doctoral dissertation. Her dissertation is concerned with the decision-making process in the elementary (*1^o grau*) public schools in the capital and interior of the State.

The school unit directed by you, and belonging to the school complexes, was selected, among others, as a sample of this universe. Your collaboration in responding to the requested interview will be indispensable, and without it, this research cannot be carried out. It would be opportune to stress that your answer will be kept *strictly confidential*.

The importance of this study for education in Pernambuco hinges on the fact that the State will be progressing towards the better functioning of the elementary education (*1^o grau*) program during the years to come, with projects to adapt the current educational network.

Since the school complexes comprise one of these adaptations, it will be opportune to study, among other things, the dynamics of the decision-making process as carried out in these schools.

This research will above all make it possible to describe in depth and in detail, the dynamics of the decision-making process in the selected school complexes, and at the same time attempt to determine the basic differences between principals with respect to certain personal, social, and environmental variables.

This will benefit the State educational system through the possible recommendation that derive from a study of this nature, principally because of the scientific structure that supports it.

We are enclosing a list of the areas of school administration that the interview will be about.

Hoping to count on your valuable attention and collaboration in this matter, I remain

Yours truly,

Lucilda Jordão De Oliveira
Director

Please identify the important decisions made by you and/or your group on behalf of your school, during this current school year, in the following areas of school administration:

1. Curricula:

Courses

Methods

Textbooks

2. Personnel:

Evaluation

Hiring

Placement

3. Finance:

Budgeting

Allocation to specific areas

4. Students:

Evaluation

Promotion

5. Community:

Parents and relatives

APPENDIX B

INTERVIEW GUIDE

INTERVIEW GUIDE

PART I. STRUCTURED ITEMS

1. Sex of the interviewed: ___ Female ___ Male
2. What is your marital status?
 ___ Married ___ Single
 ___ Widow ___ Legally separated
3. What is your religion?
 ___ Catholic ___ Protestant
 ___ Other
4. Counting the present year, how many years of teaching experience have you had?
5. Counting the present year, how many years of teaching experience have you had in this school?
6. Counting the present year, how many years of experience as a principal have you had?
7. Counting the present year, how many years of experience have you had as principal of this school?
8. How many teacher conferences, conventions, and workshops have you attended since 1974?
9. How many books in your field have you read in the last 12 months?
10. Do you subscribe to any educational journals? If so, which?
11. How old were you on your last birthday?
 ___ Less than 26 ___ 46-55
 ___ 26-35 ___ 56-65
 ___ 36-45 ___ 66 or older

12. Are you at present taking or have you completed any college courses since 1974? If so, was this further education required by your job position?
13. What is the highest degree you hold?
- Teaching Certificate (Normal School)
 - Abbreviate Licenciante
 - Certificate of Extension
 - Bachelor of Arts or Science
 - Master of Arts or Science
14. Do you belong to any professional society? Since when?
15. Do you belong to any social association? Since when?
16. What is the location of your school?
- urban
 - rural
17. What is the estimated composition (blue-collar/white-collar) of the community in which your school is located.
- 100% blue-collar
 - 90% blue-collar/10% white-collar
 - 80% blue-collar/20% white-collar
 - 70% blue-collar/30% white-collar
 - 60% blue-collar/40% white-collar
 - 50% blue-collar/50% white-collar
 - 40% blue-collar/60% white-collar
 - 30% blue-collar/70% white-collar
 - 20% blue-collar/80% white-collar
 - 10% blue-collar/90% white-collar
 - 100% white-collar
18. How many schools are there in this *complexo escolar*?

27. Approximately how much do you expect to receive as annual salary in 1976?

- Cr\$10,001 to Cr\$20,000
 Cr\$9,001 to Cr\$10,000
 Cr\$8,001 to Cr\$9,000
 Cr\$7,001 to Cr\$8,000
 Cr\$6,001 to Cr\$7,000
 Cr\$5,001 to Cr\$6,000
 Cr\$4,001 to Cr\$5,000
 Cr\$3,001 to Cr\$4,000
 Cr\$2,001 to Cr\$3,000
 Cr\$1,001 to Cr\$2,000
 Less than Cr\$1,000

28. Approximately how much is your family annual income?

- Cr\$10,001 to Cr\$20,000
 Cr\$9,001 to Cr\$10,000
 Cr\$8,001 to Cr\$9,000
 Cr\$7,001 to Cr\$8,000
 Cr\$6,001 to Cr\$7,000
 Cr\$5,001 to Cr\$6,000
 Cr\$4,001 to Cr\$5,000
 Cr\$3,001 to Cr\$4,000
 Cr\$2,001 to Cr\$3,000
 Cr\$1,001 to Cr\$2,000
 Less than Cr\$1,000

29. How many days were you absent from work in 1976?

30. How far is your residence from your school?

31. What means of transportation do you use to get to school?

32. Generally speaking, what do you expect from this new experiment, i.e., the *complexo escolar*?
33. Generally speaking, what is your attitude toward the experimental program?
34. Are you motivated to participate in this experimental program? If so, why? If not, why not?
35. Is there exchange of information, experiences and ideas among the principals of these schools, i.e., the *complexos escolares*?

PART II. PARTIALLY STRUCTURED INTERVIEW (OPEN-ENDED QUESTIONS)

1. Who made that decision?
2. Were you involved? If so, how?
3. Were alternatives considered?
4. Why was this decision important?
5. Were possible negative consequences considered?
6. Was the decision successful? Why? If not, why not?
7. What part of the staff was involved? How? Why?
8. Did any external group give input in the decision-making process? How?
9. Was the decision influenced behind the scenes by people who are not members of the staff?
10. Was the decision a result of an emergency? If so, what were the difficulties?
11. Was the decision a response to clearly identified problems? If so, which problems?
12. Did you take into consideration creative ideas given to you by the staff of the school?
13. If staff was involved, how were the ideas of the staff incorporated into your consideration?
14. What relevant factors were taken into account in this decision?
15. Did you consider the decision a good one at the time it was made? What were your criteria?
16. Why did you think that the decision you made would have the desired results?
17. Did you think of other possible ways of arriving at the same decision?

18. Did you consider the possibility that your decision might produce some results that you did not want?
19. When did you define your objective?
20. How did you analyze this decision to determine whether it was a good one before it was implemented?
21. Does any member of your staff feel reluctant to say what he/she thinks? Are the ideas of staff members generally overridden?
22. To whom do you usually go when you need information or advice about making a decision?
23. Name three persons with whom you often find yourself discussing administrative problems.
24. What priorities were established?
25. Has your group ever discussed how decisions should be made? If so, where did the members get their ideas about the decision-making process?

APPENDIX C

PRINCIPALS' RESPONSES ABOUT THE CONSIDERATION
OF DECISION-MAKING MODELS

Table 1. Percentage of Principals Considering Alternatives for Decisions in Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Principals Considering Alternatives	Principals Not Considering Alternatives	Undecided	Not Responsible
15	<u>Curricula:</u>				
11	Methods	13	87	--	--
	Textbooks	--	--	--	100
14	<u>Personnel:</u>				
10	Evaluation	29	71	--	--
	Hiring	--	--	--	100
18	<u>Finance:</u>				
8	Budgeting	--	--	--	100
	Allocation to specific areas	--	100	--	--
13	<u>Students:</u>				
17	Evaluation	8	62	30	--
	Promotion	--	--	--	--
13	<u>Community:</u>				
	Parents and relatives	--	54	46	--

Table 2. Percentage of Principals Thinking of Other Possible Ways of Arriving at the Same Decision in Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Principals Thinking of Other Possible Ways	Principals Not Thinking of Other Possible Ways	Undecided	Not Responsible
15	<u>Curricula:</u>	13	87	--	--
11	Methods Textbooks	--	--	--	100
14	<u>Personnel:</u>	29	71	--	--
10	Evaluation Hiring	--	--	--	100
18	<u>Finance:</u>	--	--	--	100
8	Budgeting Allocation to specific areas	--	100	--	--
13	<u>Students:</u>	8	62	--	30
17	Evaluation Promotion	--	47	--	53
13	<u>Community:</u>	--	54	--	46
	Parents and relatives				

Table 3. Reasons for the Importance of Decisions in Different Areas of School Concerns, Expressed in Percentage of Principals Holding Them

Number of Principals Reporting	Areas of School Concerns	Results of Decision	Value of Decision	Both Results and Values	Undecided	Not Responsible
15	<u>Curricula:</u> Methods	47	--	--	53	0
11	Textbooks	82	--	--	--	18
14	<u>Personnel:</u> Evaluation	57	7	--	36	--
10	Hiring	70	--	--	20	10
18	<u>Finance:</u> Budgeting	--	--	--	--	100
8	Allocation to specific areas	63	--	--	37	--
13	<u>Students:</u> Evaluation	69	--	8	23	--
17	Promotion	65	--	--	30	5
13	<u>Community:</u> Parents and relatives	31	23	--	23	23

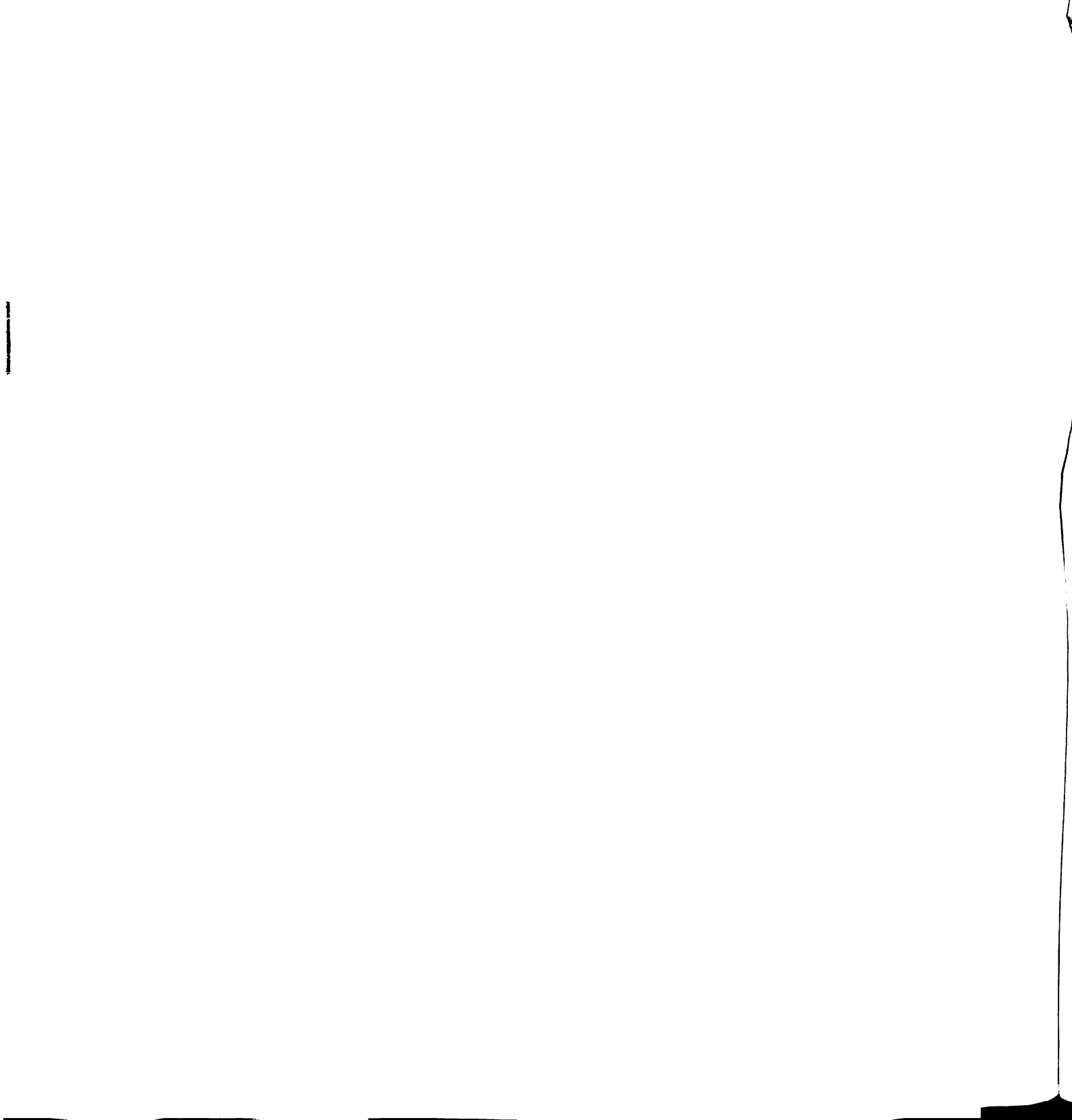


Table 4. Percentage of Principals Considering the Possible Negative Consequences of the Decisions in the Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Principals Considering Possible Negative Consequences	Principals Not Considering Possible Negative Consequences	Undecided	Not Responsible
15	<u>Curricula:</u> Methods	33	67	--	--
11	Textbooks	--	--	--	100
14	<u>Personnel:</u> Evaluation	50	50	--	--
10	Hiring	--	--	--	100
18	<u>Finance:</u> Budgeting	--	--	--	100
8	Allocation to specific areas	12	88	--	--
13	<u>Students:</u> Evaluation	--	69	31	--
17	Promotion	18	29	53	--
13	<u>Community:</u> Parents and relatives	8	46	46	--

Table 5. Percentage of Principals Considering Whether the Decisions in the Different Areas of School Concerns Might Produce Unanticipated Results

Number of Principals Reporting	Areas of School Concerns	Decision Would Not Produce Anticipated Results	Decision Might Produce Anticipated Results	Not Responsible
15	<u>Curricula:</u>			
11	Methods Textbooks	33 --	67 --	100
14	<u>Personnel:</u>			
10	Evaluation Hiring	50 --	50 --	-- 100
18	<u>Finance:</u>			
8	Budgeting Allocation to specific area	-- -- 12	-- -- 88	100 --
13	<u>Students:</u>			
17	Evaluation Promotion	-- 18	69 29	31 53
13	<u>Community:</u> Parents and relatives	8	46	46

Table 6. Percentage of Principals Reporting the Success or Failure of Decisions in the Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Success	Failure	Partial Success	Undecided	Not Responsible
15	<u>Curricula:</u>	87	--	13	--	--
11	Methods Textbooks	27	9	18	18	28
14	<u>Personnel:</u>	79	7	--	14	--
10	Evaluation Hiring	90	10	--	--	--
18	<u>Finance:</u>	--	--	--	--	100
8	Budgeting Allocation to specific areas	88	--	--	12	--
13	<u>Students:</u>	92	--	8	--	--
17	Evaluation Promotion	53	--	12	11	24
13	<u>Community:</u> Parents and relatives	69	15	8	8	--

Table 7. Percentage of Principals Making Decisions as a Result of an Emergency, and the Percentage of Difficulties Encountered

Number of Principals Reporting	Areas of School Concerns	Decision the Result of an Emergency		Difficulties Related to the Students	Difficulties Related to the Teachers	Other	Not Responsible
		Yes	No				
15	<u>Curricula:</u> Methods Textbooks	13	87	--	13	--	--
11		--	--	--	--	--	100
14	<u>Personnel:</u> Evaluation Hiring	--	100	--	--	--	--
10		--	--	--	--	--	100
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	--	--	--	--	100
8		25	75	25	--	--	--
13	<u>Students:</u> Evaluation Promotion	8	62	8	--	--	30
17		6	41	6	--	--	53
13	<u>Community:</u> Parents and relatives	8	46	--	--	8	46

Table 8. Percentage of Principals Making Decisions as a Response to Clearly Identified Problems

Number of Principals Reporting	Areas of School Concerns	Problems Clearly Identified		Problem Related to the Teacher	Problem Related to the Students	Other Problems	Undecided	Not Responsible
		Yes	No					
15	<u>Curricula:</u>	100	--	53	47	--	--	--
11	Methods Textbooks	--	--	--	--	--	--	100
14	<u>Personnel:</u>	93	7	93	--	--	--	--
10	Evaluation Hiring	--	--	--	--	--	--	100
18	<u>Finance:</u>	--	--	--	--	--	--	100
8	Budgeting Allocation to specific areas	100	--	--	100	--	--	--
13	<u>Students:</u>	54	15	8	38	--	8	23
17	Evaluation Promotion	47	--	--	47	--	--	53
13	<u>Community:</u> Parents and relatives	54	--	--	15	31	8	38

Table 9. Percentage of Principals Taking Relevant Factors into Account in the Decision-Making Process for the Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Outcomes	Values and Beliefs	Not Responsible
15	<u>Curricula:</u> Methods	93	7	--
11	Textbooks	--	--	100
14	<u>Personnel:</u> Evaluation	71	29	--
10	Hiring	--	--	100
18	<u>Finance:</u> Budgeting	--	--	100
8	Allocation to specific areas	100	--	--
13	<u>Students:</u> Evaluation	69	--	31
17	Promotion	47	--	53
13	<u>Community:</u> Parents and relatives	46	--	54

Table 10. Percentage of Principals Specifying the Criteria for Judging a Decision Good, and the Criteria Used

Number of Principals Reporting	Areas of School Concerns	Specified Criteria for Judging Decisions		Criterion: Agreement on Objectives	Criterion: Agreement of the Decision as Such	Criterion: Anticipated Results on Decision	Criterion: Other	Not Responsible
		Yes	No					
15	<u>Curricula:</u> Methods Textbooks	100	--	33	--	67	--	--
11		--	--	--	--	--	--	100
14	<u>Personnel:</u> Evaluation Hiring	93	7	7	7	79	--	--
10		--	--	--	--	--	--	100
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	--	--	--	--	--	100
8		100	--	25	--	75	--	--
13	<u>Students:</u> Evaluation Promotion	69	--	15	8	46	--	31
17		35	--	17	--	18	--	65
13	<u>Community:</u> Parents and relatives	54	--	8	8	30	8	46

Table 11. Percentage of Principals Identifying the Time When They Defined the Objectives for the Decision

Number of Principals Reporting	Areas of School Concerns	Defined Objectives Before Making the Decision	Principal Not Responsible for Decision
15	<u>Curricula:</u> Method	100	--
11	Textbooks	--	100
14	<u>Personnel:</u> Evaluation	100	--
10	Hiring	--	100
18	<u>Finance:</u> Budgeting	--	100
8	Allocation to specific areas	100	--
13	<u>Students:</u> Evaluation	69	31
17	Promotion	47	53
13	<u>Community:</u> Parents and relatives	54	46

Table 12. Percentage of Principals Identifying Criteria for Analyzing the Decision in Order to Determine the Validity of the Decision Before Implementing It

Number of Principals Reporting	Areas of School Concerns	Criterion: Number of Persons Preferring the Decision	Criterion: Principal's Own Personal Conviction	Criterion: Other	Principal Undecided	Principal Not Responsible
15	<u>Curricula:</u> Methods Textbooks	73	27	--	--	--
11		--	--	--	--	100
14	<u>Personnel:</u> Evaluation Hiring	29	50	--	21	--
10		--	--	--	--	100
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	--	--	--	100
8		63	37	--	--	--
13	<u>Students:</u> Evaluation Promotion	38	--	--	31	31
17		18	6	--	23	53
13	<u>Community:</u> Parents and relatives	31	--	7	15	47

Table 13. Percentage of Principals Specifying Why the Decisions They Made Would Have the Desired Effect

Number of Principals Reporting	Areas of School Concerns	Reasons Based on Benefits to Students	Reasons Based on Benefits to Teachers Alone	Reasons Based on Benefits to the Staff	Reasons Based on Benefits to Parents and Relatives	Reasons Based on Past Experience	Principal Undecided	Principal Not Responsible
15	<u>Curricula:</u> Method Textbook	13	54	20	--	13	--	--
11		--	--	--	--	--	--	100
14	<u>Personnel:</u> Evaluation Hiring	--	86	7	--	--	7	--
10		--	--	--	--	--	--	--
18	<u>Finance:</u> Budget Allocation to specific areas	--	--	--	--	--	--	100
8		100	--	--	--	--	--	--
13	<u>Students:</u> Evaluation Promotion	23	46	--	--	--	--	31
17		35	6	--	--	--	6	53
13	<u>Community:</u> Parents and relatives	--	15	8	23	--	8	46

Table 14. Percentage of Principals Consulting With the Staff About How Decisions Should Be Made and Which Approaches Should Be Used

Number of Principals Reporting	Considered Specific Approaches		Considered Rational Comprehensive Approach	Considered Incrementalist Approach: "Muddling Through"	Considered Mixed-Scanning Model	Considered Other Models
	Yes	No				
18	11	89	--	--	--	11

Table 15. Populations Reported by Principals as Being Priority Groups

Priority Group	Number of Principals Reporting Group as a Priority	Percentage of Principals Responding
Students	18	100
Community	8	44
Schools	5	28
Teachers	3	17

APPENDIX D

PRINCIPALS' RESPONSES ABOUT DECENTRALIZATION OF THE
DECISION-MAKING PROCESS AND PARTICIPATION
OF THE STAFF IN THE PROCESS

Table 16. Percentage of Principals Identifying Individuals or Organizations Responsible for the Decisions Made in Different Areas of School Concerns

Number of Principals Reporting	Areas of School Concerns	Staff Responsible	DERE Responsible	SEC Responsible	Principal Alone Responsible
	<u>Curricula:</u>				
15	Methods	93	--	--	7
14	Textbooks	--	--	100	--
	<u>Personnel:</u>				
14	Evaluation	79	7	--	14
10	Hiring	--	--	100	--
	<u>Finance:</u>				
18	Budgeting	--	--	100	--
8	Allocation to specific areas	88	--	--	12
	<u>Students:</u>				
13	Evaluation	69	--	31	--
17	Promotion	47	--	53	--
	<u>Community:</u>				
13	Parents and relatives	54	--	46	--

Table 17. Percentage of Principals Involved in the Decisions Made, and Percentage of Modes of Involvement

Number of Principals Reporting	Areas of School Concerns	Principal Involved In This Decision		Principal Involved With the Idea Alone	Principal Involved With Both the Idea and Group Discussion	Principal Involved With the Group Discussion Alone	Principal Involved In Some Other Way	Principal Undecided	Principal Not Responsible For the Decision
		Yes	No						
15	<u>Curricula:</u> Methods Textbooks	100	--	13	27	60	--	--	--
11		--	100	--	--	--	--	--	--
13	<u>Personnel:</u> Evaluation Hiring	93	--	14	29	36	14	7	--
10		70	30	--	--	--	70	--	--
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	100	--	--	--	--	--	--
8		88	--	13	63	13	--	12	--
13	<u>Students:</u> Evaluation Promotion	69	31	--	23	46	--	--	31
17		47	53	6	12	29	--	--	53
13	<u>Community:</u> Parents and relatives	54	46	8	23	23	--	--	46

Table 18. Percentage of the Staff Involved in the Decisions Made, and the Percentage Involved Because of Their Expertise

Number of Principals Reporting	Areas of School Concerns	Principal	Vice-Principal	Coordinator	Counselors	Teachers	Clerical Workers	Other	Coordinator Involved Because of Expertise	Counselors Involved Because of Expertise	Teacher Involved Because of Expertise	Clerical Workers Involved Because of Expertise	Other Involved Because of Expertise	Undecided	Not Responsible For the Decision
15	<u>Curricula:</u> Methods Textbooks	100	73	53	7	80	--	--	53	7	80	--	--	--	--
11		--	--	--	--	--	--	--	--	--	--	--	--	--	100
14	<u>Personnel:</u> Evaluation Hiring	100	64	57	--	29	--	7	57	--	29	--	7	--	--
10		--	--	--	--	--	--	--	--	--	--	--	--	--	100
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	--	--	--	--	--	--	--	--	--	--	--	--	100
8		100	75	50	50	38	38	38	--	50	50	38	38	--	--
13	<u>Students:</u> Evaluation Promotion	54	46	38	--	54	--	--	38	--	54	--	--	15	31
17		47	41	24	--	29	--	12	24	--	29	--	12	--	53
13	<u>Community:</u> Parents and relatives	54	46	38	8	54	--	--	38	8	54	--	--	--	46

Table 19. Percentage of Principals Considering Creative Ideas Offered
By the Staff of the School

Number of Principals Reporting	Areas of School Concerns	Staff's Ideas Considered			Principal Not Responsible For the Decision
		Yes	No	Undecided	
15	<u>Curricula:</u> Methods	87	7	6	--
11	Textbooks	--	--	--	100
14	<u>Personnel:</u> Evaluation	64	29	7	--
10	Hiring	--	--	--	100
18	<u>Finance:</u> Budgeting	--	--	--	100
8	Allocation to specific areas	100	--	--	--
13	<u>Students:</u> Evaluation	62	7	--	31
17	Promotion	41	--	6	53
13	<u>Community:</u> Parents and relatives	46	8	--	46

Table 20. Percentage of Principals Reporting How the Staff's Ideas Were Incorporated in the Decisions Made

Number of Principals Reporting	Areas of School Concerns	Discussion and Analysis	Discussion, Analysis and Implementation	Principal Undecided	Not Responsible For the Decision
15	<u>Curricula:</u>	7	80	13	--
11	Methods Textbooks	--	--	--	100
14	<u>Personnel:</u>	14	43	43	--
10	Evaluation Hiring	--	--	--	100
18	<u>Finance:</u>	--	--	--	100
8	Budgeting Allocation to specific areas	25	63	12	--
13	<u>Students:</u>	15	46	8	31
17	Evaluation Promotion	12	29	6	53
13	<u>Community:</u> Parents and relatives	15	23	15	47

APPENDIX E

PRINCIPALS' RESPONSES ABOUT THE EXISTENCE
OF INFORMATION OR ADVICE NETWORKS
IN THE DECISION-MAKING PROCESS

Table 21. Percentage of Principals Thinking Staff Members Reluctant to Give an Opinion About the Areas of School Concerns, and the Percentage of Staff Members Whose Ideas Are Overridden/Ignored

Number of Principals Reporting	Areas of School Concerns	Staff Reluctant to Say What They Think		Staff's Ideas Generally Overridden		Principal Undecided	Principal Not Responsible For the Decision
		Yes	No	Yes	No		
15	<u>Curricula:</u> Methods	40	40	--	80	20	--
11	Textbooks	--	--	--	--	--	100
14	<u>Personnel:</u> Evaluation	14	64	21	57	22	--
10	Hiring	--	--	--	--	--	100
18	<u>Finance:</u> Budgeting	--	--	--	--	--	100
8	Allocation to specific areas	25	63	--	88	12	--
13	<u>Students:</u> Evaluation	24	38	--	62	19	19
17	Promotion	18	23	--	41	41	18
13	<u>Community:</u> Parents and relatives	15	39	8	46	--	46

Table 22. Percentage of Principals Reporting External Input in the Decision-Making Process, and the Modes of External Involvement^a

Number of Principals Reporting	Areas of School Concerns	Received External Input		Professional	Nonprofessional	External Source	External Persons Involved With the Idea Alone	External Persons Involved With Group Discussion Alone	External Persons Involved In Some Other Way	Principal Not Responsible For the Decision
		Yes	No							
15	<u>Curricula:</u> Methods Textbooks	13	87	13	--	Supervisor/DERE	--	7	--	--
11		--	--	--	--	--	--	--	--	--
14	<u>Personnel:</u> Evaluation Hiring	14	86	7	7	Supervisor/DERE	7	--	--	--
10		--	--	--	--	--	--	--	--	--
18	<u>Finance:</u> Budgeting Allocation to specific areas	--	--	--	--	--	--	--	--	--
8		--	100	--	--	--	--	--	--	--
13	<u>Students:</u> Evaluation Promotion	--	69	--	--	--	--	--	--	31
17		6	41	6	6	Supervisor/DERE	--	6	--	53
13	<u>Community:</u> Parents and relatives	15	39	8	15	Parents and Social Workers	--	8	8	46

^aIn the categories "professionals" and "nonprofessionals" of this table, a respondent can give an answer for one category or both categories. The same principle applies to the categories of "modes of involvement."

Table 23. Percentage of Professionals/Nonprofessionals From Whom Principals Seek Information or Advice Related to the Decision-Making Process

Number of Principals Reporting	Professional Upper Echelon Only	Professional Lower Echelon Only	Both Upper and Lower Professional Echelon	Nonprofessional Upper Echelon Only	Nonprofessional Lower Echelon Only	Both Upper and Lower Nonprofessional Echelon
18	39	44	17	--	--	--

Table 24. Individuals From Whom Principals Seek Information or Advice in the Decision-Making Process^a

Professional Upper Echelon ^b	No.	Professional Lower Echelon ^c	No.	Both Categories ^d		No.	
				Professional Upper Echelon	Professional Lower Echelon		
Coordinators and Supervisors of DERE/NSP	5	Vice-principals	5	Coordinator and Supervisors of DERE/NSP	3	Vice-principals	3
Expertise of the Secretariat of Education and Culture	7	Pedagogical coordinator	5			Pedagogical coordinator	2
		Teachers	3			Teachers	2
		Counselors	3			Counselors	2
		Secretaries	2			Secretaries	1
		Clerical workers	2			Clerical workers	1
		Other principals (colleagues)	1			Other principals (colleagues)	--

^a Whenever the number of respondents exceeds the number of principals for each category, multiple answers have been given.

^b Seven principals are in this category.

^c Eight principals are in this category.

^d Three principals are in this category.

Table 25. Percentage of Individuals With Whom Principals Frequently Discuss Administrative Problems

Number of Principals Reporting	Professional Upper Echelon Only	Professional Lower Echelon Only	Both Upper and Lower Echelon	Nonprofessional Upper Echelon Only	Nonprofessional Lower Echelon Only	Both Upper and Lower Echelon
18	6	38	56	--	--	--

Table 26. Individuals With Whom Principals Often Discuss Administrative Problems^a

Category of Professional Upper Echelon ^b	No.	Category of Professional Lower Echelon ^c	No.	Both Categories ^d			Professional Lower Echelon	No.
				Professional Upper Echelon	No.	Professional Lower Echelon		
Secretary of Education	1	Vice-principals	6	Coordinators DERE/NSP	7	Vice-principals	5	
Heads of the Departments of the Secretariat of Education and Culture	1	Pedagogical coordinators	6	Supervisors DERE/NSP	2	Other principals	4	
Coordinators of DERE/NSP	1	Other principals	4	Heads of the Department of the Secretariat of Education and Culture	1	Teachers	4	
		Administrative assistants	3			Pedagogical coordinators	3	
		Secretaries	1			Administrative assistants	--	
		Teachers	--			School secretaries	--	

^aWhenever the number of respondents exceeds the number of principals for each category, multiple answers have been given.

^bOne principal is in this category.

^cSeven principals are in this category.

^dTen principals are in this category.

APPENDIX F

PRINCIPALS' RESPONSES ABOUT PERSONAL-SOCIAL
AND ENVIRONMENTAL VARIABLES

Table 27. Formal Education and Qualifications for the Current Job

	Degree Status of Principals	Percentage of Principals
Formal education	Teaching Certificate	6
	Abbreviate Licenciante	44
	Bachelor of Arts	44
	Master of Arts	6
	Yes (%)	No (%)
College courses since 1974	78	22
Further education required by position	71	29

Table 28. Principals' Professional Experience in the Field of Education

Field	Number of Years Experience	Percentage of Principals
Teaching experience in general	Less than 10	5
	10-15	45
	15-20	17
	21-25	28
	More than 25	5
Teaching experience at the present school	Less than 5	94
	5-10	0
	More than 10	6
Principalship experience in general	Less than 5	33
	5-10	50
	11-15	11
	More than 15	6
Principalship experience in the current position	Less than 5	45
	5-10	45
	More than 10	10

Table 29. Principals' Professional Activities, 1974-1976

Professional Activities	Number	Number of Principals	Total Number of Activities	Average for Principals
Workshops attended	None	8	169	9
	1-5	1		
	6-10	5		
	11-15	2		
	More than 15	2		
Seminars attended	None	9	37	2
	1-5	7		
	6-8	2		
Meetings attended	Fewer than 50	6	2,153	120
	51-100	2		
	101-150	4		
	151-200	2		
	201-250	2		
	More than 250	2		
Books read	None	5	56	3
	1-5	10		
	6-10	2		
	11-15	0		
	More than 15	1		
Educational journals subscribed to	None	12	--	--
	1-3	4		
	4-6	2		
Years of membership in educational societies	None	8	--	--
	1-10	5		
	11-20	4		
	More than 10	1		

Table 30. Principals' Attitude, Motivation, and Expectation with Regard to the Experimental Program

	Positive (%)	Negative (%)
Attitude toward the experimental program	100	0
	High (%)	Low (%)
Motivation toward the experimental program	100	0
Expectations toward the experimental program	89	11

Table 31. Principals' Annual Salary and Annual Total Family Income

Principals' Annual Income from Salary (in cruzeiros) ^a	Percentage of Principals	Principals' Total Annual Family Income (in cruzeiros) ^b	Percentage of Principals
More than 230.000	--	More than 230.000	5
211.000-230.000	--	211.000-230.000	--
191.000-210.000	--	191.000-210.000	17
171.000-190.000	--	171.000-190.000	--
151.000-170.000	--	151.000-170.000	5
131.000-150.000	--	131.000-150.000	5
111.000-130.000	5	111.000-130.000	17
91.000-110.000	--	91.000-110.000	--
71.000-90.000	28	71.000-90.000	17
51.000-70.000	17	51.000-70.000	17
31.000-50.000	28	31.000-50.000	12
10.000-30.000	11	10.000-30.000	5
Less than 10.000	11	Less than 10.000	--

^aU.S.\$1.00 = Cr\$11 30 in October 1976 currency.

^bAll money earned by family living at the same house (viz., husband, wife, children, et al.).

Table 32. Characteristics of the Community

Population Characteristics	Population (%)
Region: Urban	100
Rural	0
100% blue-collar workers	29
90/10 blue-collar/white-collar workers	--
80/20 blue-collar/white-collar workers	11
70/30 blue-collar/white-collar workers	40
60/40 blue-collar/white-collar workers	5
50/50 blue-collar/white-collar workers	--
40/60 blue-collar/white-collar workers	5
30/70 blue-collar/white-collar workers	5
20/80 blue-collar/white-collar workers	--
10/90 blue-collar/white-collar workers	--
100% white-collar workers	5

Table 33. Percentage of Turnover of Technical/Administrative Personnel and Teachers, and Percentage of Absenteeism of Principals, 1974-1976

Personnel Turnover	Percentage	Principals' Absenteeism (in days)	Percentage of Principals
<u>Technical/ Administrative:</u>		More than 120	5
Pregnancy	4	111-120	18
Transfer	8	101-110	--
Retirement	2	91-100	--
Leaving the profession	--	81-90	5
Other ^a	11	71-80	11
		61-70	5
<u>Teachers:</u>		51-60	5
Pregnancy	5	41-50	5
Transfer	5	31-40	5
Retirement	--	21-30	18
Leaving the profession	2	Less than 21	23
Other ^a	10		

^aSick leave, private matters, and other circumstances.

Table 34. Principals' Residence in Relation to the School, and Means of Transportation Used to Get to School

Principals' Residence	Percentage of Principals
Resides in school community	39
Does not reside in school community	61
Transportation to School	Percentage of Principals
Drives car	56
Public transportation	11
Walks	33

Table 35. Proximity of the Schools to the Offices of DERE/NSP and SEC

	Access to the Offices of DERE/NSP (percentage of schools)	Access to the Offices of SEC (percentage of schools)
Difficult access ^a	--	22
Easy access ^b	100	78

^a Responses based on the absence of a "variety of means of transportation" and/or "good roads."

^b Responses based on the existence of a "variety of means of transportation" and/or "good roads."

APPENDIX G

THE MAJORITY AND THE DEVIANT
GROUPS COMPARED

Table 36. Job Qualification of the Majority Group and the Deviant Group Compared

Principals' Formal Education	Majority Group (%)	Deviant Group (%)
Teaching certificate (normal school)	6	--
Abbreviate licenciante	44	33
Bachelor of arts	44	67
Master of arts	6	0
Those having taken college courses since 1974	78	100
Those not having taken college courses since 1974	22	--
Further education required by position	71	67
Further education not required by position	17	33

Table 37. Age of Principals in the Majority Group and the Deviant Group Compared

Age of Principals	Majority Group	Deviant Group
56 and above	--	--
46-55	28	--
36-45	67	100
26-35	5	--
Below 26	--	--

Table 38. Professional Experience of Principals in the Majority Group and the Deviant Group Compared

Principals' Experience in Education	Number of Years Experience	Percentage of Principals	
		Majority Group	Deviant Group
Teaching experience in general	Less than 10	5	33
	10-15	45	--
	15-20	17	67
	21-25	28	--
	More than 25	5	
Teaching experience at the present school	Less than 5	94	67
	5-10	0	33
	More than 10	6	0
Principalship experience in general	Less than 5	33	0
	5-10	50	33
	11-15	11	67
	More than 15	6	0
Principalship experience in the current position	Less than 5	45	33
	5-10	45	0
	More than 10	10	67

Table 39. Professional Activities of Principals in the Majority Group and the Deviant Group Compared, 1974-1976

Professional Activities	Number of Separate Activities	Majority Group			Deviant Group		
		Number of Principals	Total Number of Activities	Average per Principal	Number of Principals	Total Number of Activities	Average per Principal
Workshops attended	None	8			--		
	1-5	1			3		
	6-10	5			--		
	11-15	2	169	9	--	12	4
	More than 15	2			--		
Seminars attended	None	9			--		
	1-5	7			3		
	6-8	2	37	2	---	9	3
Meetings attended	Less than 50	6			3		
	51-100	2			--		
	101-150	4			--		
	151-200	2			--		
	201-250	2			--		
	More than 250	2	2,153	120	--	96	32
Books read	None	5			--		
	1-5	10			2		
	6-10	2			1		
	11-15	--			--		
	More than 15	1	56	3	--	10	3
Educational journals subscribed to	None	12			1		
	1-3	4			2		
	4-6	2	--	--	--	--	--
Years of membership in educational societies	None	8			2		
	1-10	5			1		
	11-20	4			--		
	More than 20	1	--	--	--	--	--

Table 40. Majority and Deviant Principals' Attitude, Motivation, and Expectation with Regard to the Experimental Program

	Positive		Negative	
	Majority Group (%)	Deviant Group (%)	Majority Group (%)	Deviant Group (%)
Attitude toward the experimental program	100	100	--	--
	High		Low	
	Majority Group (%)	Deviant Group (%)	Majority Group (%)	Deviant Group (%)
Motivation toward the experimental program	100	100	--	--
Expectations from the experimental program	89	100	11	--

Table 41. Majority Group and Deviant Group Compared with Respect to Exchange of Information, Experience, and Ideas among Principals

Type of Communication	Majority Group (%)	Deviant Group (%)
Formal	44	--
Informal	39	67
None	17	33

Table 42. Principals' Salary and Total Family Income, Majority and Deviant Principals Compared

Principals' Annual Income from Salary (in cruzeiros) ^a	Percentage of Principals		Principals' Total Annual Family Income (in cruzeiros) ^b	Percentage of Principals	
	Majority Group	Deviant Group		Majority Group	Deviant Group
More than 230.000	--	--	More than 230.000	5	--
211.000-230.000	--	--	211.000-230.000	--	--
191.000-210.000	--	--	191.000-210.000	17	--
171.000-190.000	--	--	171.000-190.000	--	--
151.000-170.000	--	--	151.000-170.000	5	33
131.000-150.000	--	--	131.000-150.000	5	--
111.000-130.000	5	34	111.000-130.000	17	--
91.000-110.000	--	--	91.000-110.000	--	--
71.000-90.000	28	--	71.000-90.000	17	--
51.000-70.000	17	--	51.000-70.000	17	--
31.000-50.000	28	--	31.000-50.000	12	--
10.000-30.000	11	33	10.000-30.000	5	33
Less than 10.000	11	33	Less than 10.000	--	34

^aU.S.\$1.00 = Cr\$11,30 in October 1976.

^bAll money earned by the family living in the household (e.g., husband, wife, children, et al.).

Table 43. Characteristics of the Community, Majority Group and Deviant Group Compared

Population Characteristics	Population	
	Majority Group (%)	Deviant Group (%)
Region: Urban	100	100
Rural	--	--
100% blue-collar workers	29	--
90/10 blue-collar/white-collar workers	--	--
80/20 blue-collar/white-collar workers	11	--
70/30 blue-collar/white-collar workers	40	67
60/40 blue-collar/white-collar workers	5	--
50/50 blue-collar/white-collar workers	--	33
40/60 blue-collar/white-collar workers	5	--
30/70 blue-collar/white-collar workers	5	--
20/80 blue-collar/white-collar workers	--	--
10/90 blue-collar/white-collar workers	--	--
100% white collar workers	5	--

Table 44. Turnover of Technical/Administrative Personnel and Teachers, and Absenteeism of Principals of Majority Group and Deviant Group Compared, 1974-1976

Personnel Turnover	Percentage of Turnover		Principals' Absenteeism (in days)	Percentage of Principals	
	Majority Group	Deviant Group		Majority Group	Deviant Group
<u>Technical/</u>			More than 120	5	--
<u>Administrative:</u>			111-120	18	--
Pregnancy	4	--	101-110	--	--
Transferred	8	--	91-100	--	--
Retirement	2	--	81-90	5	--
Leaving profession	--	--	71-80	11	--
Other ^a	11	--	61-70	5	--
<u>Teachers:</u>			51-60	5	34
Pregnancy	5	2	41-50	5	--
Transferred	5	2	31-40	5	--
Retirement	--	--	21-30	18	33
Leaving profession	2	--	Less than 21	23	33
Other ^a	11	7			

^aSick leave, private matters, and other circumstances.

Table 45. Principals' Residence in Relation to the School, and Means of Transportation Used, Majority and Deviant Groups Compared

Principals' Residence	Percentage of Principals	
	Majority Group	Deviant Group
Resides in school community	39	100
Does not reside in school community	61	--
Transportation to School	Percentage of Principals	
	Majority Group	Deviant Group
Drives car	56	67
Public transportation	11	--
Walks	33	33

Table 46. Proximity of Schools to the Offices of DERE/NSP and SEC,
Majority and Deviant Groups Compared

Access	Access to the Offices of DERE/NSP (percentage of schools)		Access to the Offices of SEC (percentage of schools)	
	Majority Group	Deviant Group	Majority Group	Deviant Group
Difficult access ^a	--	--	22	100
Easy access ^b	100	100	78	--

^a Responses based on the absence of a "variety of means of transportation" and/or "good roads."

^b Responses based on the existence of a "variety of means of transportation" and/or "good roads."

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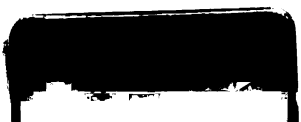
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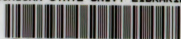
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