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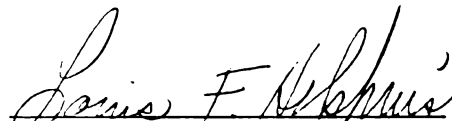
UNIVERSITIES IN BRAZIL

presented by

Wagner Saleme

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**THE PLANNING PROCESS AT SELECTED FEDERAL
UNIVERSITIES IN BRAZIL**

By

Wagner Saleme

A DISSERTATION

**Submitted to
Michigan State University
in partial fulfillment of the requirements
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ABSTRACT

THE PLANNING PROCESS AT SELECTED FEDERAL UNIVERSITIES IN BRAZIL

By

Wagner Saleme

The purpose of this study was to describe the planning process at three selected federal universities in Brazil. Specifically, the study was undertaken to: (1) describe the present structure for planning, (2) identify the methodologies and techniques used in planning activities, (3) describe the concepts, attitudes, and influence had by planners and decision-makers on planning, (4) identify the obstacles and problems encountered by participants in performing their duties, and (5) suggest or recommend models for use in planning activities.

To accomplish the above, three sources of information were used: questionnaire, interview, and documents related to planning. A total of seventy-five respondents participated in the study.

Among the findings participants were in general, ill-prepared for dealing with the complex governance of their universities. Their experience as professors, has failed to give them the background necessary to carry out many of their administrative duties. Despite a great acceptance of planning and management principles among the universities, little or no progress has been made. There are no diagnostic studies, nor plans and, consequently, no techniques or model

Wagner Saleme

have been used for planning activities. Much of what has been done in Brazilian universities seems to result from the requirements imposed by outside factors dictated mainly by governmental agencies. The groups exercising the greater degree of influence on planning were identified as: the university president and general vice presidents, vice presidents for planning, governmental agencies, members of the decision-making bodies. Problems related to financial resources, autonomy, and lack of participation and motivation of the academic community in planning were perceived as the major obstacles for planning.

The following recommendations were submitted: (1) training programs should be promoted and supported by the universities and governmental agencies; (2) decision-makers should insist on well documented planning and budgets, and should also examine the careers of the top administrators for previous experience in planning; (3) the vice president for planning should be given more authority, and should delegate administrative responsibilities that can be performed by subordinate personnel; (4) planning models and techniques have to be tailored for specific conditions and for different purposes.

DEDICATION

This study is dedicated to my wife, Dagraca, for her love, patience and support, and to our children, Daniela, Bruno and Gabriela, for their patience and understanding.

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CHAPTER I

INTRODUCTION

Background of the Study

Despite the long and outstanding history of American higher education, the emphasis on and wide-spread practice of administrative planning are relatively new in higher education. Until 1960, there was very little evidence of planning in post secondary education. Only a small proportion of the literature deals with planning as an administrative process. Dror (1963) observed that " . . . it is very interesting to note that, despite the growing number of articles and books dealing with planning on one level to another, only a few efforts have been made to develop a systematic approach to the study of planning as an administrative process" (p. 46). Instead, the literature would treat as individual and independent the many and varied issues which might justify the development of planning at colleges and universities (Dober, 1963).

In the late 1960's, many college administrations are becoming increasingly aware that they must improve planning. The needs for funds could no longer be met in public and private institutions, and those responsible for providing

funds increasingly asked for an accounting of how much money was being spent. Questions of resource allocation and efficient resource utilization are crucial. The interest in planning for higher education has grown at such a rate as to suggest the existence of a "planning movement" (Fincher, 1966).

In the seventies and eighties, planning is needed in many colleges and universities to cope with the declining state of enrollment. For the university administrator without a planned direction and policy limits for acceptable organizational behavior, the administrator has no reference point upon which to "fix" the course of organizational behavior. Planning provides the fixed point of reference upon which all the other dynamic elements of the administrative process can be joint (Cunningham, 1982).¹ Newatha and Newport (1977) point out that for any specific operation, planning is the fundamental and primary management function. It is considered to be the basis for performance of a manager's job. A lack of planning results in waste and inefficiency.

This viewpoint is echoed by Hicks and Gullet (1981). They see planning as the first managerial function performed by a particular activity. From an organizational viewpoint:

(1) The other dynamic elements of the administrative process cited by Cumningham are: organizing, commanding, coordinating, and controlling. According to him planning is the foundation upon which the other four functions rest (p. 3).

1) planning sets organizational goals and objectives, 2) planning then forecasts the environment in which objectives must be accomplished, and 3) determines the approach by which the goals and objectives are to be accomplished. Planning serves to orient the organization and the general approach it will use to get there (Hicks and Gullet, 1981, p. 249).

The justification for planning can be found in the assumption that management can do something to affect the future, at least partially, so that the future state would more closely approximate a desired state (Scott, 1965). Planning, as viewed in this study is based on the assumption that it is the only key to the viability of colleges and universities, and the only process by which managers visualize and determine future courses of action that will lead to a realization of desired objectives. As John Stecklein states:

" . . . The sheer magnitude of the increases in number [of students] and finances has made the operation of colleges and universities much more complex and harder to understand. Because of the increased magnitude of the enterprise, and because of the markedly more conspicuous allocation of resources, individuals and boards responsible for the conduct of the enterprises have become increasingly concerned about efficient operations and effective utilization of resources. The administrators running the enterprise have been forced to adopt management science techniques to assist them in understanding a multitude of bewildering problems" (Knowles, p. xiii).

In Brazil, during the last decade, the administration of higher education has been undergoing significant changes. Responding to new times and faced with several problems, the universities now is more complex and sensitive to the administrative problems facing the organizations. (Finger, 1979). This has led to the introduction of many new concepts and, to a certain degree, a restructuring of its administrative organization. Various solutions have been formulated and efforts have been made. However, Brazilian universities, like other Latin American universities, have invested a great deal of time, money, and human resources, in structural reforms, aimed at increasing its organizational efficiency, but these efforts have not experienced a multiplier effect due to several factors such as the scarcity of resources, the inability to meet the demands of education, excessive centralization, noncompetitive remuneration the increasing cost of goals and services, etc (Crane, 1976).

This study recognizes that many problems are confronting higher education in Brazil, and there is a substantial amount of administrative responsibilities in today's colleges and universities. It further recognizes that planning is one of the methods by which higher education administration can reasonable expect to come to terms with the financial, social and political crises of our times (Eurich and Tickton, 1976). Those who are responsible for university administration will find this study helpful

in ascertaining the efficiency and adequacy of their own system of administration.

Statement of the Problem

Since the early 1960's higher education in Brazil began a process of expansion unprecedented in its history. The government had set out to drastically increased the capacity of the university institutions in which the total enrollment increased by 500 percent from 1960 to 1971 (Source: Cunha, p. 106). During this last two decades the Brazilian university-student population has increased by 1,042 percent, and the annual increment has been more than 10 percent in recent years (Source: Anuario Estatístico do Brasil, 1981). By 1968, a reform of university structure and curricula was started. Inspired by the American model, the intention was to use available financial and human resources in a more rational way, and to guarantee a more effective utilization of staff and students.

Silva (1977) observed that the university reform was also the product of the social and economic transformations taking place in the society. In the process of development, the society had begun to pressure the university to " . . . assume a critical consciousness of itself, to reformulate its objectives, to rethink its method of action, and to activate its structure in order to adjust itself to the ongoing social pressures" (p. 28).

Several educators and authors in Brazil in analyzing the rapid expansion of Brazilian universities, generally agree that the spectacular growth occurred without and rationality and planning (Mendes, 1972, Silva, 1977, Braga, 1978).

According to Silva (1972), the rapid growth of higher education has created serious problems. Two opposing forces are in operation in the university system in Brazil. They are largely the result of the rapid opening of higher educational institutions to serve the large number of candidates pressing for places in the university. In this particular, the problems of higher education in Brazil are similar to those of other developing countries. In contrast to developed countries, the amount of available resources (public and private) is lower, the pressure for education to contribute to the overall development program is greater, the need to offer more education to more students is greater and, consequently, the margins for error are narrower. A developed nation can afford more mistakes, more experimentation and more waste than the developing countries. Not surprisingly, the crises in education are felt more strongly in the developing nations and the search for solution is conducted with greater urgency (Chadwick, 1970).

The other force results from the urgent need for modernizing the university both in cultural and administrative terms. In regard to the latter, Fidelis

(1982), on his research about university administrators in Brazil, identified five main areas of problems related to higher education. These problems are the following:

1) Problems related to finance.

The lack of financial resources; lack of equipment or physical space; and bad or insufficient salary.

2) Problems related to administrative centralization.

Lack of autonomy; excessive bureaucracy; inadequate institutional structure; excessive centralization; and lack of autonomy for specific decisions, i. e., academic, political, and financial decisions.

3) Problems related to personnel.

Staff inadequacy; lack of training; lack of leadership; and lack of interest.

4) Problems related to faculty.

Assessment of the faculty; lack of interest; poor selection; lack of preparation; excessive politics in academic life; and lack of professionalism as a teacher.

5) Problems related to the planning process.

Inadequate planning; lack of planning; lack of integration; problems of coordination among various academic areas; and administrative disorganization (p. 130-131).

These problems are the same as those described by Finger (1978), who investigated Brazilian university

presidents (cited by Fidelis, 1982, p. 131), and similar to those cited by Eurich (1970) for American universities. These problems are: 1) not enough money; 2) vague, not clearly defined objectives; 3) confuse and hostile constituencies including students, faculty, alumni, parents, and community groups, 4) anachronistic curricula; 5) outmoded and inefficient teaching techniques; 6) lack of qualified teachers and administrators; 7) disagreement about the top priorities; and 8) inefficient use of plants and facilities.

Admittedly, planning will not solve all these problems. But the process of planning is the process of addressing precisely these questions, and doing one's best to answer them (Eurich, 1970).

There have been attempts to plan in Brazilian universities. However, the efforts have been disorganized. Data has been accumulated on rather arbitrary bases, rather than by well-devised scientific methods, suggesting an awareness of the need for specific information to be obtained through specific research (Mendes, 1972, p. 57).

" . . . the planning organs have consistently tried to come closer and closer to a scientific process, but they suffer from two pressures: The government always wants rapid, new solution to its immediate problems. And the public, being poorly informed about the problems and anxious for the practical solutions, has probably been oversold on what planning can and cannot accomplish" (Mendes, 1972, p. 58).

Today's planning in Brazil is complicated by increased

government regulation, inflation, high costs, centralization, and a rapid improving technology which creates costly "obsolescence." In addition, there is a widespread belief that many colleges and universities are extremely poorly managed and incapable of producing quality planning.

Fidelis (1982), concluded his study that two major problems in university administration may be due to underqualified administrators.

- a) improvisation as a method of administration; and
- b) excessive attention to routines, formats and process, and a lack of emphasis on the ultimate goals of the institution.

Daland (1967) in his review of the Brazilian planning stated that " . . . planning has come to Brazil not because of innate sense of rationality and order. In many respects, on the contrary, the temperament and values of the Brazilian people do not accept the order, efficiency, and nationality which planning implies" (p. 12).

In summary, there is generical consensus or at least one issue in Brazilian universities - the inadequacy of the educational system's response to the needs of the society. Changes are needed in practically all institutions of higher education. However, the response to necessary change has been slow, and at times nonexistent. Faced with a huge increase in the number of students, the normal approach has been to do the same things for those growing numbers, i. e.,

perpetuate the existing structure and ways of doing things. The expansionist approach for expansion has been to enlarge the existing educational system as rapidly as possible, without modernizing its structure (Braga, 1978).

Possibly no period in the history of higher education in Brazil has seen greater pressures on colleges and universities to be more efficient and effective. There is no doubt that planning is a necessity in our times. The profound and accelerating changes have impelled the search for new instrumentalities (Mendes, 1972, p. 47). It is reasonable to say that Brazilian universities have grown according to the circumstances and there has been little concern for planning for its development. This is so true that there is not a single university in Brazil that knows what it will be like in the future (Oliveira, 1982). What is called "planning" in Brazilian university is the mere distribution of resources among the school systems within the university (Novais, 1968).

In this study the emphasis was placed, at least in part, on identifying appropriate planning procedures enabling those involved in planning and decision-making roles an understanding of the present situation.

It is expected that the finding of this study help those involved in university administration to understand the planning process and gain acceptance of new management concepts.

Purpose of the Study

From a practical perspective the purpose of this study is to describe the planning process at selected federal universities in Brazil by focusing on the activities engaged in by planners and decision-makers.

Specifically, this study was developed with a view to the following purposes:

- 1) to describe the current structure of the planning entities; participants in planning; their responsibilities inherent to their posts; their perceptions as to the importance of training, degree, and personal characteristics necessary in the performance of their duties;
- 2) to identify the methodologies and techniques which have been adapted in the elaboration of diagnosis and planning activities
- 3) to identify concepts, attitudes and influence of the planners and decision-makers toward planning;
- 4) to identify obstacles and problems encountered by planners and decision-makers in the performance of their duties.
- 5) to suggest or recommend planning techniques that might be helpful to Brazilian universities.

Significance of the Study

Despite the aforementioned problems, efforts have been made in Brazil to develop planning approaches at the national, regional, state and local levels. However as Paiva (1979) stated, despite the importance that the federal government has assumed in planning, efforts to discuss its problems have been very few and very little research is available.

Many studies and researches have been developed by Brazilian authors dealing with university administration. However, a literature search conducted in Brazil by the author revealed that no one has conducted research dealing with planning as an administrative process in a university setting. There are very few articles or books concerned with planning. Most of the studies, articles and books, dealt with planning at the national level. One of these studies was conducted by Paiva (1979) that focused its attention on planning activities performed by the members of the Ministry of Education.

Several factors motivated the choice of this study. First, as Ackoff (1970) stated, the need for planning is so great that is hard for anyone to be against it. The second is related to the financial situation facing higher education in Brazil. The resources allocated by the federal government for higher education have decreased substantially each year. According to Table I, the total amount of

financial resources available in 1985 represent only 21.5 percent of the total existent in 1981 in real terms. Although these resources have decreased substantially, the federal appropriations for higher education are still high. The large amount of financial resources allocated for education (which represent 70 percent of the total fund allocated in education in Brazil) each year by the government requires an efficient administration and a well organized structure. The need for planning can be justified on the grounds that the resources of a college and university are limited , and the needs seemingly limitless. In other words, planning is concerned with the effective use of scarce resources to achieve desired goals (Vaccaro, 1976).

Another concern which is addressed is the interest the universities have in planning. The awareness of how planning has been performed will give the institutions studied the opportunity to acquire insight into the situation and, if possible, to take action at the different levels of organization.

Finally, it is expected that this research provide useful information to those involved in planning and afford them greater understanding of the present planning process at Brazilian universities. It is expected also that this study will provide guidelines for comparative research, and serve as a basis for further studies in the area of university administration.

Table I

Resources Allocated to Maintenance Expenditure to Brazilian
Institutions of Higher Education by the Federal Government
1981/1985 - CR\$ 1,000,000

Year	Total	Inflation%		Real Value Base=1981	Index	
		Rate	Deflation		1981=100	1984=100
1981	14,912		1	14,912	100	234
1982	26,217	99	2	13,174	88	207
1983	43,080	211	6	6,971	46	109
1984	127,895	223	20	6,356	42	100
1985	212,524	230	66	3,218	21	50

Source: MEC/SESU.

* Projected.

Definition of Terms

The following terms were used in this study:

Federal university: Institutions of higher education supported by the federal government and developing its educational service in accordance with federal laws (Finger, 1978).

Autarchy: The autonomous service created by law, with a legal status, self-government, and budget, that perform typical administrative activities (Montandon, 1981).

Foundation: An institution of the private sector that receives governmental subsidies and is subject to

ministerial supervision (Montandon, 1981).

Planners: They are the Vice-presidents for planning, and report directly to the president of the university.

Vice-President for Planning: The principal administrative officer in charge of planning activities in the universities. All federal universities in Brazil have a vice-president in charge of planning.

Decision-Makers: As used in this study refers to members of the university council.

University Council: Like the Board of Trustees in American universities the university council is the body provided by the law, existing at each federal university, responsible for approving or developing the general policy in all areas.

Planning process: Refers to the process of formulating an alternative set of decisions by optional means, in order of helping decision makers to create a future.

Limitations of the Study

Among the limitations of this study were the following:

- 1) Generalizations of this study should be exercised with caution. Although this study offered some empirical observations about the planning process of Brazilian universities, it was limited to three federal institutions and, therefore, generalizations can be made in these institutions;

- 2) The method of data collection was based on interviews and questionnaires applied to vice-presidents for planning and members of the university council and, thus, were dependent in part on the perceptions and insights of these individuals related to planning;
- 3) The scope of this study was limited to the literature available in the library of the Michigan State University, the archives of ERIC, and the library of the College of Education of the Federal University of Minas Gerais in Brazil.
- 4) The researcher has been working in the administration of federal university for almost 20 years, and may have cultural and professional biases that affect this study.

Overview of the Study

This study is divided into five chapters. Chapter I included a background of the study, the purpose of the study, a statement of the problem, significance of the study, limitation, and a review of the study.

In Chapter II a review of the pertinent literature was presented. This Chapter was organized into two sections. The first one deals with the literature related to planning for higher education. The second section described higher education in Brazil, and the development and organization of

planning.

Chapter III contains a detailed presentation of the methodology used in this study. Included in this presentation were information related to: research strategies; the study population; the participants data collection and instrumentations; a pretest and pilot study; procedures for data collection; and information analysis.

The in-depth analysis of the data was described in Chapter IV.

Finally, Chapter V contains a summary of the study, the major findings, conclusions, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This review is presented in two sections. The first reviews the theoretical aspects of the literature concerned with planning for higher education. First, a discussion of planning, including some views taken with respect to planning is presented followed by an overview of the aspects of the organization related to planning. Thus, planning is presented as an important aspect of management science. Next, the phase in and organization of planning are reviewed. Special attention is given to the participants in planning. In the final part of this section, planning models are defined, including a presentation of the models most commonly used in American post secondary institutions.

The second section deals with planning in Brazil. It starts with a historical outline of Brazilian higher education growth, followed by a brief presentation of its present structure and problems related to planning. Another part of this section discusses the development and organization of planning in Brazilian higher education. The purpose of this second section is viewed as necessary to

understand the formal aspects of higher education in Brazil, and the context upon which the planning activities are developed.

SECTION ONE: PLANNING FOR HIGHER EDUCATION

Concepts of Planning

There are various concepts of planning and the theme is explored from several viewpoints. A brief examination of some commonly used definitions is presented in this review. This facilitated the formulation of the concept of planning used in this study. Chirikos and Wheeler (1968) noted that, despite the rapidly growing number of studies done on the subject, they found little agreement as to the dimensions or scope of such planning. According to them "planning is fundamentally a technical activity related to the decision-making process. Its purpose in the context of a national program is to assess the implications of alternative set of policies and thereby assist decision makers in choosing the set which is most appropriate to the specified objectives of the program. In the sense that good decision-making always clarifies alternative courses of action and seeks to satisfy predetermined targets" (p. 264).

The IOWA State Department of Education provided the following definition:

"Comprehensive planning is a process to produce valid information in the form of alternative courses of action, together with predicated consequences of such alternatives, to aid decision-making by those engaged in educational policy formulation and administration. The process should be capable of providing information relative to any educational problem input and should incorporate self renewal and updating as essential features" (Wolvek, 1968, p.9).

A definition of the planning process as it relates to administration is defined by UNESCO (1980) in the International Conference on Educational Planning. ". . . planning is . . . the application to education itself of a rational scientific approach to examining the implications of alternative courses of action and choosing wisely among them, deciding on specific targets to be met within specific time limits, and finally developing the best means of systematically implementing the choices thus made" (p. 12). From this perspective planning is much more than the drafting of a blueprint; it is a continuous process following the succession of interdependent actions: a) classification of educational objectives; b) diagnosis of present conditions and recent trends; c) assessment of alternatives; d) translation of plans into action; and e) evaluation and adjustment.

Planning has also been conceptualized as a process deeply involved with political dimension and political roles. This political model "sees planning as an outcome of group interest involved in a power relationship. Instead of

a rationally asserted set of goals, the planning process is involved with competing goals" (Faludi, 1973, p. 12).

Daland and Parker (1962) define the roles of the planners the technical role, the political innovator role and the educator's role. To play the political innovator role, the planner must be capable of infusing new ideas into the political decision process.

There is a wealth of other planning definitions, each tending for one position. Some authors tried to ignore these tendencies, and formulate a generally valid conception. One of these authors is Redford (1952) who defined planing as:

"Planning is a world of many meanings. To some it means a blueprint for the future; to others it means only foresight, and action with the forward policies of the government for regulation of the economy as a whole. To some it means government responsibility to take whatever action is necessary to ensure that the economic system operates efficiently, to others it means only that the government should correlate whatever function it undertakes toward desired overall objectives" (Redford, 1952. p. 18).

Planning itself has been restricted to Dror (1963), Anderson and Bowman (1964), and Adams' and Bjork's (1969) definition of "the process of preparing a set of decisions for future action pertaining to education". This, combined with the certainty of future changes in present situations, in Diez-Hochleitner's words, "planning is an attitude reflecting the desire for orderly change and the strategy by which this change can be brought about" (Cited by Inbar, 1980, p.379).

This review could go on and quote a large number of planning definitions. However, as stated before, the primary purpose of this review is to present some concepts in order to assist in the formulation of the basic concept used in this study. Although planning as seen in this study is considered to be the only key to the viability of colleges and universities in this time of crises and limited "resources in Brazil, it should be emphasized that planning is not a panacea for curing all the ills of educational system. Nor a standardized formula to be imposed on all situations regardless of their cost differences. It is not a conspiracy to destroy the freedoms and prerogatives exercised by teachers, administrators and students, nor a desire for enabling a small group of technocrats to usurp their freedom of choice and decision over educational aims, policies and priorities of a society. Nor is it an exercise in planning for its own sake, which neglects the fundamental characteristics of education, and the all-important fact that man and the full life of man is the ultimate end of education" (UNESCO, 1970, p. 12).

It seems that, for the purposes of this investigation, planning can be defined as a process of formulating an alternative set of decisions by optimal means, in order to help decision-makers create a future.

Planning, as a process, should always be considered as merely a means to achieve appropriate ends, and a "continuous activity taking place within a unit and

requiring some input of resources and energy in order to be sustained" (Dror, 1963, p.50). The planning process is directed at suggesting the optimal means for achieving the objectives of the organization, i.e., at selecting on the basis of rational processes - including collection of information, utilization of knowledge, systematic and integrative data processing, etc - the optimal strategy for achieving the desired goals.

Planning, also, is seen not as a design for a future, but a process of helping create the future, in a sense that "if the planner merely projects into the future present states, and claims that he is forecasting or predicting the future, he too is justifying the present" (McGin, 1980, p.8).

Planning and Management Science Applied to Higher Education

There is, in general, an agreement among several authors, that planning is the primary managerial function which logically precedes all other functions (Koontz and O'Donnell, (1964), Newatha and Newport (1977); Hicks and Gullet (1981); Cunningham, 1982).

The management process begins - or should begin - with planning. More than any other function, planning determines the degree of success an organization achieves. All other managerial activities have only one purpose: to help the organization achieve its goals. The functions of organizing,

staffing, directing, and controlling will be performed haphazardly if the organization has no purpose to achieve (Schwartz, 1980).

Planning, as seen by Koontz and O'Donnell (1959) is the function of a manager involving the selection, from among alternatives, of objectives, policies, procedures, and programs. "It is, thus, decision making which affects the future course of an organization. Planning is the job of making things happen that would not otherwise occur. It is thus the conscious determination of courses of action, and the basis for decisions on purposes, facts, and considered estimates" (p. 453).

The same viewpoint is shared by Le Breton and Henning (1961). They described the planning function as comprised by the following components: (1) establishing objectives and goals, (2) determining policies and procedures; (3) preparing necessary plans for meetings; (4) stated objectives and goals, and; (5) implementing plans (p. 5).

The justification for planning is based on the assumption that management can do something to affect the future, at least partially, so that the future state would more closely approximate a desired state (Lahr, 1981, p.26). Besides that, as King and Cleland (1978) observed, "managers are becoming increasingly aware of the need for better information techniques, and processes to cope with the risks and uncertainties that are the handmaidens of change. Managerial assessments of the likely impacts of the

constantly occurring social, economic, and technological changes have become essential to organizational survival and growth. Among the most perplexing problems facing contemporary managers is how to anticipate future problems and opportunities and how to designate strategies to cope with and take advantage of them" (p.3).

The essential nature of planning, according to Koontz and O'Donnell (1982), can best be understood by four fundamental truths concerning this important management function. The first of these truths is contributing to objectives. Every plan and all of its derivatives must contribute in some positive way to the accomplishment of group objectives. "Plans alone cannot make an enterprise successful. Action is required . . . Plans can, however, focus action on purpose. They can forecast which actions will tend toward the ultimate objectives. . . , which tend away, which will likely offset one another, and which are merely irrelevant. Managerial planning seeks to achieve a consistent, coordinated structure of operations geared to the desired ends. Without plans, action becomes merely random activity, producing nothing but chaos" (Goetz, 1969, p.2).

The second premise is that planning is a fundamental prerequisite to the managerial function of organizing, staffing, direction, and control. Although in practice all the functions intermesh as a system of action, planning is unique in that it involves establishing the objectives

necessary for all group.

The third truth refers to the pervasiveness of planning. The character and breadth of planning will vary with each manager's authority and with the nature of policies and plans outlined by superiors.

Finally, the last one deals with the efficiency of plans. Plans are efficient if, when implemented, they bring about the attainment of objectives with a minimum of unsought consequences and with results that are cost-effective.

The current conditions confronting higher education have created an awareness of the need to increase the importance of planning and formal management system in colleges. The improvement of educational efficiency through planning must be accompanied by the modernization of educational management. As Hopkins and Massy (1981) stated ". . . an era of philosophical discussion on the priorities of a college has been replaced by an era characterized by the necessity of tight management by the central administration and careful long-range planning. Many institutions independently come to the conclusion that the traditional intuitive judgments must be replaced by sophisticated modern management" (p.2).

In the literature, the following factors - economic, political, and social - have been driven administrators to seek new principles and techniques to assist them in university operation: (Cited by Wilson, 1982, p.13)

- 1) The existence of an economic crisis due to dwindling enrollments, rising costs, and a scarcity of resources (Fuller, 1976; Schroeder and Adams, 1976; Seaman, 1979);
- 2) The need to allocate their resources effectively and efficiently (Huddeleston, Ehl, Klein, and Boehm, 1969);
- 3) The lack of public confidence in its institution (Fuller, 1976; Schroeder and Adams, 1976);
- 4) A time of student disenchantment (Schroeder and Adams, 1976);
- 5) Public disenchantment with the rising cost of education, and questioning of the value of the investment (Cherrington, 1979);
- 6) Pressure from students, faculty, and the public for more effective and efficient administrative procedures (Krampf and Heinlein, 1973);
- 7) The need to respond to the often repeated, but rarely validated, charge that colleges are poorly or inefficiently managed (Diran, 1978);
- 8) The need to respond to pressure from groups demanding accountability for administrative decisions (Nwagbaraocha, 1979);
- 9) The need for more sophisticated information to demonstrate accountability to regulatory groups (Nwagbaraocha, 1979);
- 10) The importance of demonstrating fiscal

responsibility to the legislative or supporting body and to taxpayers and the community (Wager, 1976); and

- 11) The realization of the continuing fiscal situation confronting higher education (Huddelston, Ehl, Klein, and Boehm, 1969).

In response to these problems, many colleges and universities have emphasized the importance of planning and a more formal management system to deal more effectively with the present stressful condition.

The field of management development in higher education is relatively new and has yet to achieve its full potential (Bogard, 1972; John, 1980). Historically, as John (1980) stated, there has been a lack of emphasis on management development in education in general, and higher education in particular. Although it is a product of the university, there is a shortage of training programs for colleges and universities administrators.

Schroeder and Adams (1976), have found that most higher education administrators want to make use of the principles of management science to assist them in operating their organizations. According to them, despite this positive attitude, "these administrators seem to lack a systematic method for approaching their specific organizations in order to decide which areas of application and what techniques should be introduced" (p.117).

There has been considerable resistance to the adoption

of the new management techniques in higher education. Concerns about this were expressed by Plourde (1976) when he stated that " the primary issues are not new, and they have long been at the center of the ancient debate between administrators and faculties about the "proper" role of administrators in higher education" (p .18). Among these issues are:

- 1) Defining and measuring educational output are difficult tasks.
- 2) The production functions of higher educated are not precisely defined, and there is no accepted formula for determining the resources required to produce a unit of output.
- 3) Quantifying basically subjective concepts such as the value added by the institution is a problematic task.
- 4) Whether centralization or decentralization are better.
- 5) There is an inherent conflict between administrative efficiency on the one hand and academic effectiveness on the other (Rourke and Brooks, 1966, p. 3).

Rourke and Brooks (1966) supported this contention when they concluded that "university personnel are highly reluctant to accept changes in the operation of the university" (p.1). Another factor in the success or failure of a planning or managerial system is the degree of

commitment on the part of educational manager. In this regard Van Dusseldorp (1969) express the viewpoint that:

"It is not possible to develop a management system unless management is willing to devote its own time to the effort. Management systems cannot be developed by systems and informational technologists working by themselves or working with personnel at the operations level. The development requires a joint effort of management personnel and information specialists. Only management itself knows what decisions it must make and what information is needed for decision making" (p. 32-33).

Many other conditions can be identified. Among these conditions are internal conflicts among offices, resistance from operational staff, lack of technical expertise, lack of financial resources, lack of adequate computer facilities, lack of direction and planning, and the degree of uncertainty facing the universities (Wilson, 1982).

Some authors believe that the failure to recognize planning and management as sciences can be overcome. Seaman's viewpoint is that data processing staff could avoid it by assuming a greater role in the management of educational institutions. Nwagbaraocha (1979) suggests that any development program must have the following: (1) a clear methodology for involving those who will be affected by the program and its design; (2) continual briefing sessions for those individuals as the system is being developed and implemented; (3) extensive training programs in the use of the system once it is developed; and (4) a corresponding professional development program in management and planning

to improve the skills of those who will be using the systems (p. 43).

In summary, the principles of planning and management cannot be enforced by law. This must be understood and accepted. There is, therefore, a developing feeling that it cannot be effective if the higher education community is not always better informed and consulted. The efficiency of the system is an essentially democratic process.

Structure for Planning Organization

One of the most important issues in internalizing the planning process is how an institution be organized to achieve its goals more efficiently.

According to Hicks and Gullet (1981), from an organizational viewpoint, planning: (1) sets organizational goals and objectives; (2) forecasts the environment in which objectives are to be accomplished; and (3) determines the approach to be used to this end. Thus, planning determines where the organization is going and the general approach it will use to get there.

The organization of the planning process, as described by Eberle and McCutcheon (1970), is divided into three parts - educational development, campus development, and long-range budgeting and financial development. Each phase is approached in four successive stages: preparation, input, processing, and output. "Planning is seen as a continuous

process . . . and once is completed, plans and records can be kept current by adding, subtracting, and changing without repeating completely all steps in the process" (p. 68).

The first stage - preparation - establishes the framework for planning by formulating the organizational structure, identifying the information needed, identifying and assessing the controllable and uncontrollable variables, conceptualizing the institutional profile for the future by determining the institutional philosophy, and setting, in general terms, the objectives to be accomplished at various points in time.

The second phase - input - is to define further the objectives of the institution, to compare its current status with objectives for the future, and to arrive at possible ways of bridging the gap between objectives and current status.

In this second phase the institutional objectives should be established in understandable terms. A hierarchy of needs, problems and deficiencies is identified, and ranked according to the order in which they are to be alleviated in the effort to reach the institution wide objectives. Finally, a set of goals, expressed in quantitative terms, whenever possible, addressing each need, problem, and deficiency is set.

The third phase, or processing stage, is to assess the suitability and feasibility of proposed means of goal attainment. The assessment procedure progresses according to

logical and sequential order, that is, the alternatives proposed for the most fundamental needs are considered first.

The last phase, or output stage, is to arrive at a basic plan and alternatives for educational development.

Finally, financial component plans are formulated, including the program budget for the institution for several years, and a financial plan. However, a plan must be continually updated, and this can be done only after at least one individual is permanently delegated the task of reviewing the plan, to analyze how well the institution is keeping to it, and to insist that the necessity of such a departure means that revisions are indispensable. A major problem is that no one person is able to do the entire job (Dressel, 1971, p. 267).

Steps

Many colleges administrators are becoming increasingly aware that they must improve planning in their institutions. However, they are unsure as to how to go about it.

Alvin Eurich's point of view is that four steps must be followed. The first essential step in planning is a commitment to the plan on the parts of the president, the key administrative officer, and the trustees. The next step is to designate an administrative officer to be responsible for planning. Another is the collection of all information

needed to formulate an adequate plan. Finally the major administrative officer should formulate specific down-to-earth recommendations that are feasible and prepare a time table for carrying them out.

This same viewpoint is shared by Vaccaro (1976); Eberle and McCutcheon (1970). All consider planning to be the responsibility of the president, because he must make all final decisions on the recommendations that will go to the board. This plan must finally be adopted by an institution's policy board, because this action can be considered policy making: whereas the implementation of the plans falls under administrative functions.

Beneeniste (1970), suggests that planning usually involve four types of analyses: diagnosis, trend analysis, system analysis optimization, and plan formulation, the latter being a synthesis of the first three.

- 1) "Diagnosis" implies the collection of factual information about the existing and past situation.
- 2) "Trend analysis" means estimating and forecasting future trends of external and internal variables which in one way or another are central to decision-making in education.
- 3) "System and optimization analyses" consist of establishing how the different components of education system are functioning.
- 4) Finally, all three phases described are integrated into a statement of future policies which is

called a plan.

Paul Dressel (1971), also suggests some steps in planning. They are similar to the afore-mentioned, and are comprised of the following steps: the first step of a planning effort requires that a statement of assumptions about the future be developed; followed by the review of past operations, trends, and an assessment of the current status of the college and university. The third step, which can be developed simultaneously with the second, is the classification of goals which includes a delineation of the role of the institution in society. The final step in the planning process is the projection of the existing and anticipated new programs proposed.

In short, a study of the literature on planning shows that there is a consensus among several authors in describing the steps in formulating a plan. The basic problems, as pointed out by Vaccaro (1976) are the lack of the support by the necessary persons within the college or university, and getting them to do their share of the actual work. The success of a plan depends directly on the effectiveness of the chief executive officer in gaining the support, interest and commitment on the part of those referred to above. Another problem, Vaccaro (1976) raised was that a plan has to be based on real terms. It is common for planners "to be prone to 'blue sky' without concerns for the realities in which the college finds itself. This, in turn, leads to disillusionment when they are told that the

plan is not feasible or cannot be implemented. It is important early in the planning process for them to realize that they aren't working for the Federal Reserve Bank - that is, they are not able to create money" (p. 155).

In working with limited resources attention must be given to the possibility of re-defining goals and purposes. This may require changing other goals and objectives the institutions may have, or it may involve limiting the goals to be attained over a span of time. One can adjust the plan to resources by establishing a set of priorities. One can modify groups of goals by, eliminating some of them (Dressel, 1971).

Participants in Planning

Correa and Adams (1972) conceptualize planning in terms of the participants in the process. They make distinction, among four main functions in planning: decision-making, the technical function, implementation, and control functions. The groups involved in the development of these functions are: decision-makers, planners, educational administrators and public interest groups. Decision-makers were identified in this study as those members of the university council, in key positions related to planning. They represent the actual leadership of the university and their roles in the planning process are crucial since all decisions have to be submitted to them. Other agents in the planning process are the vice

presidents for planning in charge of the technical functions related to planning.

The role of the planner has been defined by UNESCO (1980) as:

- (a) the planner as a researcher - generating, commissioning, evaluating, updating, and utilizing an increasingly complex range of knowledge based on the dynamics of the educational system and its relationship to the processes of change that are occurring in its social, economic, and political environments;
- (b) the planner as a communicator - providing a communication link between the expression of need at the base, the "upward flow of information", and the decision-making process;
- (c) the planner as an advocate- seeking and utilizing ways to bring his own values and ideas about the future of education and society to bear upon the process that sets the boundaries and directions of the planning process;
- (d) the planner as a technician- not limited to, but in command of, the methods and techniques of analyzing both the present state of the educational system and the trends that are likely to determine its future shape, size, and quality, and duly critical in reorganizing the limitations of such techniques (p. 163).

Benveniste (1977) defines the political and technical roles of the planner. The political role includes that of the facilitator of communication, persuader, coalition developer and the "go between" among parties in planning decisions. The technical role includes these of an expert, specialist, and analyst.

Daland and Parker (1962) defined four roles: institutional leader, professional, political innovator and educational. The three first categories are included as political and technical roles. In the educational role, the planner has to work with various power groups and special interest groups, keeping them informed of the progress of the planning toward the several objectives (cited by Paiva, 1979, p. 28).

The definition of what the educational planner should be, know, do and not do is a function of the characteristics of the social and political system within which he has to operate. According to the UNESCO (1980), educational planners, on the same organizational level, may vary widely with respect to the tasks performed, qualifications, responsibilities, and training. A number of the planner competences may be: (UNESCO, 1980)

- 1) The planner should be able to identify the implications of various causes of action, and to anticipate all possible external and environmental influences that are likely to affect their implementation;

- 2) He should be a facilitator of change, an agent of change and, by the same token, a "politician in the broadened sense of the word";
- 3) The planner should be a "catalyst" to the development of projects and plans, somebody who incorporates a diverse set of ideas, operations, and needs into a coherent whole;
- 4) He should be aware of the qualitative dimension of planning, and should understand the processes which the quality of the process is determined;
- 5) The planner should be a politician in his own right and try to affect the political decision making process in the direction of his own ideas of the future of the educational system (p. 162).

According to UNESCO (1980), "not all of these definitions are mutually compatible; they reflect different positions on what is needed for the further development of educational planning, and may eventually lead to the definition of more specific roles within a more global concept of planning" (p. 162).

Planning Models

An important part of this study is to promote understanding of the present models used in post-secondary education. Models will not be described in detail. However, some of the most common planning models used in colleges and universities are presented. Planning models as Hopkins and

Massy (1981) stated are recognized as very useful aids in planning and decision-making, and can be powerful tools that permit people to produce better plans or decisions than would otherwise be possible.

"Planning models are a product of modern decision-science. Generally, quantitative, by nature, they are designed to help managers and policy planners make more informed decision about the allocation of resources. When appropriately designed and applied can be of great use in aiding administrators to make decisions of fundamental academic importance. Planning models can help provide the conditions for academic excellence" (Hopkins and Massy, 1981, p. 1).

An effective modeling in an academic setting requires a clear sense of what is important for the institution. It should be emphasized that models do not make decisions nor can they replace judgments on the part of decision-maker. According to McNamara (1971) "models are designed to aid and support decision-makers by providing pertinent data on alternative programs and courses of action. Planning models allow decision-makers to form expectations of future consequences. These consequences are based on known empirical relationships and the decision-makers' own judgments" (p. 441).

Many people hailed the advent of the simulation models in higher education as the answer to its problems, particularly in these times of tight money and increased accountability. "The value of a model is that it will provide the administrator the opportunity to test the

resource implications of a variety of combinations before he makes the choice" (Wise, 1971, p. 67). John Keller (1967), an early proponent of models, notes that model building is useful in four ways:

- 1- The development of the model automatically forces a deeper understanding of the interactions within the system under study.
- 2- Models permit the evaluation of a wide range of alternatives - surely a key feature of cost/benefit analysis.
- 3- Models help provide a hedge against risk and uncertainties.
- 4- Where low confidence is associated with the most probable values of key input parameters, models are supposed to help with the uncertainty.

What is a Model - Before presenting the various models used in institutions of higher educations it will be useful to conceptualize what a model is and its purpose. Models, as defined by Hopkins and Massy (1981), are about something, i.e., they support to represent an aspect of something that exists, or might exist, in the world. The process of modeling is always one of synthesizing known facts, theories, and judgments into a meaningful pattern.

Models have a number of uses for an institution of higher education. According to Wager (1976): (1) they may be a method of dealing with substantive problems, and a way of prescribing how things should be done; (2) it may be a

decision-model: dealing with what would need to be done to make certain events occur; (3) it may be used to perform a program analysis to determine which programs need to be modified, deleted, or added; (4) once the model is operational, it could be used to determine the efficiency of operations of the institution, or of specific components on the institution; (5) the model could also be used as a tool for managing the institution.

The position of Hopkins and Massy (1981) is that models are designed for a purpose. These purposes can be ". . . improvement of a specific decision; or it may to increase one's understanding of some phenomenon in order to advance scientific knowledge, to aid teaching and learning; or perhaps simply to satisfy curiosity. The degree of approximation that will be acceptable in a model depends upon the purpose for which it is being used. The criteria of acceptability are both absolute (Is the model credible?) and relative (What are the available alternatives, including mental models?)" (p.4).

Planning Models Applied to Higher Education

Models for educational planning have appeared in the educational literature in the late 1960's (e.g. Hartley, 1969; U.S. Department of Health, Education and Welfare, 1970) and in other sources (Ackoff, 1969; Durstine, 1969; Feld, 1970). Fox and Sengupta (1968) and Wealthersby (1970)

outlined specific criteria for the construction of mathematical programming and simulation models in education (McNamara, 1971, p. 440).

According to Hopkins and Massy (1981), in the last two decades there has been an increasing mass of studies done on the application of models in higher education. The many offices of institutional research established during the last decade have done a great deal to gather and process data, and make them available in formats that are comparable over time and across academic programs. Among these offices there are the National Center for Higher Education Management System (NCHEMS), American Council of Education (ACE), Consortium of Financing Higher Education (COFHE), the Institute of Management Science (TIMS), the Operations Research Society of America (ORSA), and the American Institute for Decision Science (AIDS).

A number of different planning models are available. It is important to keep in mind that effective models require an understanding of both what is important for the institution and what means can be used to achieve the desired ends. Careful attention must be given to choosing areas appropriate for analysis and to constructing models that are properly tailored to the special needs of colleges and universities.

Wiseman (1979), states there are two kinds of models: 1- the generalized and comprehensive; and 2- the individualized or home grown. The generalized models are

intended, after appropriate tailoring, for any organization; whereas the individualized model is for one particular organization. On the success or failure of these models, he stated the following:

"While evidence to support a judgment on the success or failure of individualized models as such is not presently available, empirical studies documenting the experiences of generalized model users lead to one conclusion: generalized models have failed to satisfy the premises of their designers and the hopes of their users" (p. 726).

Porter, Zemsky, and Oedel (1979) describe three types of models and their limitations:

- 1- Models designed for a single college or university (ex: TRADES model from Stanford are too specific to be successfully incorporated into an other's university policy-making environment).
- 2- Models for a general purpose mode (ex: NCHEMS/WICHE); oversimplify the relationship between resource utilization and academic activity
- 3- Models that emerge from operations (called Optimizing models) are not relevant for broad issues of strategic academic policy.

A number of surveys of model building for higher education are available. Paul Plourde in 1976 surveyed 394 schools with access to the most widely used comprehensive systems RRPM (Resource Requirements Prediction Model), SEARCH (System for Evaluating Alternative Resource Commitments in Higher Education), CAMPUS (Comprehensive

Analytic Methods for Planning in University/College System), and HELP/PLANTAN (Higher Education Long-Range Planning/Planning Translator). Replies to the question as to whether or not the model was used in decision-making: 0.0% replied "always"; 57.5% replied "sometimes" 15.1% replied "often"; and 27.4% replied "never". In this research 97.5 percent of the respondents indicated that modeling should be encouraged.

Other surveys of models used in higher education were provided by Paul Gray (1976). He classifies models in terms of their methodology rather their application. He gives examples of the use of: (a) linear programming, including goal programming, network flows formulated as linear programs, and integer programming; (b) methods for dealing with uncertainty in terms of probability models; (c) computer simulation model; (d) feedback control, or cybernetic processes. He also describes some of the problems that must be overcome if efforts at modeling are to be successful (cited by Hopkins and Massy, 1981, p.9).

The most comprehensive survey of model building for higher education was conducted by Roger G. Schroeder (1973). He classified the applications of management science to higher education with the following categories: (a) Planning, Programming and Budgeting Systems (PPBS); (b) Management Information Systems (MIS); (c) Resource Allocation Models; and (d) Mathematical Models.

Planning, Programming and Budgeting Systems (PPBS)

It has been defined in terms of its name: planning refers to the setting of organizational objectives and goals; programming refers to identifying and evaluating programs or alternatives which meet those objectives; and budgeting refers to providing the resources to support the programs. PPBS is more than just a new method of budgeting, it includes planning and analysis functions as well (Schroeder, 1973, p. 897).

NCHEMS is responsible for the development of PPBS in higher education, and has developed a standard program classification structure "so that institutions can have comparable data on costs of programs and to facilitate statewide, regional and national planning" (Schroeder, 1973). The Zero-base budgeting (ZBB) has the same characteristics of PPBS, especially when applied to academic and institutional support services. PPBS and ZBB are products of the more recent planning era, and by design, are integrated in the planning process, call for continual reassessment of the need for discrete programatic activity, and leads to efforts to measure each program's performance (Caruthers and Orwig, 1981).

Management Information Systems (MIS)

MIS refers to the collection, storage and retrieval of information for both planning and control functions. The information in an MIS includes financial and budget data, student enrollments, course-demand statistics, facility

planning data and so on. Two models were developed in the designer and testing of MIS's for higher education: the NCHEMS Program and the Stanford Project INFO. The NCHEMS work is closely related to their PPBS effort in standard program classification structures and data elements. The INFO (Information Network for Operations) developed a set of procedures to facilitate the construction and maintenance of a data base. It also includes extensive software development, programming and file structure design efforts (Schroeder, 1973, p. 899).

Resource Allocation Models

These models relate the inputs of the educational process to the resources allocation. "They translate enrollment projection into demands for courses, faculty, facilities, and support activities. The required resources are then estimated and aggregated for various output reports. The purpose of these models is to simulate the effects of changes in enrollment as in technology (student-teacher ratios, class size, etc.) on the resources required" (Schroeder, 1973, p. 898).

The best known resource allocation models are CAMPUS (Computerized Analytical Methods in Planning University Systems) and RRPM (Resource Requirements Prediction Models (Hopkins and Massy, 1981).

There are several versions of CAMPUS available. The first model was developed at the University of Toronto, Ontario, Canada, and have been applied in a number of

institution in Canada and U.S.A. "From enrollment inputs, CAMPUS develops activity workloads and the associated faculty, space and equipment required. Usually an activity is taken to be an individual course, although it may be defined at a higher level. From given enrollments, students are allocated among curricula (e.g. first semester MBA) according to a specified distribution vector. This provides a given number of students in each curriculum. Activity loads are then computed from specified probabilities that student in a given curriculum will engage in a particular activity. These activity loads are aggregated across all curricula and appropriate activities are grouped by cost centers (usually academic departments) and by programs. After applying the resource factor to the activity loads, the result gives the resource requirements of the given input enrollments over future periods" (Schroder, 1973), p. 898).

The RRPM, developed by NCHEMS, is suitable mainly for making cost-per-student calculations under current operating conditions and it is questionable whether the expense of building in a large amount of detail for this purpose can be justified (Hopkins, 1971, p. 476).

The RRPM proceeds from enrollment projections to course demands to faculty requirements to faculty costs and related support costs. The major differences between CAMPUS and RRPM is that the latter is more aggregated, and does not have as much flexibility in data input format. Its lowest level of

aggregation is the discipline level. It is not designed to simulate to the level of individual courses (Schroeder, 1973).

There are other resource allocation models. The SEARCH model, developed in the private domain by Peat, Marwick (1971). This model is highly aggregated, at a level similar to RRPM. Student data include sex and class; faculty data are by five ranks and from departments. The output is: student enrolled by class, total faculty and individual compensation, budget summaries, and enrollment summaries. According to Kornfield et. al. (1972) this model provides little information that is helpful in deciding on the internal allocation of resources since there is no cost breakdown per academic department.

Another model called HELP/PLATAN, developed by the Midwest Research Institute, was designed to aid administrators, having no expertise in the field of computers, to utilize computer technology in their planning. The starting point for implementation design is the budget; then all items which can be quantified, not necessarily in dollars, are added. The output is a reference matrix containing all data submitted and a set of reports containing just the items requested. It is a comprehensive planning system in that the user may set up a number of alternatives or "what-if" questions (Sutterfield, 1971).

Two other models were introduced by the end of 1978 _ the first was TRADES (a convenient form for "trade-offs"), a

financial planning model implemented at Stanford University. The chief premise of the model was that it is better to begin with planning at a macro or university-wide level and then let desegregate planning proceed on the basis of more subjective criteria within the resulting overall budget and manpower constraints. TRADES diggers from the NCHEMS models which works from the bottom up and reject NCHEMS' use of production functions to represent the institution (Bleau, 1981, p. 159).

EEPM EDUCOM Financial Planning Model is the newest model, developed by Dan Updegrone in 1978. "EEPM provides a blank matrix of 560 variables by ten years periods, with which the user can design a model of an endowed university, a state university, a small college, or a specific department. It is an interactive system for generalized budgeting and financial planning based on the model approach of TRADES. It is not an actual model, but a modeling tool which allows the user to create institution-specific categories and institution-specific mathematical representations. It has the capability of evaluating alternative assumptions and plans" (Bleau, 1981, p. 164).

Mathematical Models

Mathematical models can be used for several purposes. Models included in this category are concerned with analyzing problems of an operational nature such as predictions, institutional cost analysis, and optimal resource allocation (Schroeder and Adams, 1976, p. 121).

A common type of model is the Markov model, which projects student enrollment by major and grades level for each of several periods in the future. Most of the resource allocation models (CAMPUS, MSU, SEARCH) have Markov student flow sections which predict future enrollment of students. In the faculty staffing there are models such as those developed by Oliver (1968); Goody, Hopkins and Oliver(1968); Bartholomeu (1969); Roure, Wagner and Weathersby (1968); and Breneman (1969). These models investigated: non-tenure and tenured faculty turn-over and the effect on new appointments and promotions policies; faculty retirement rates; the effect of hiring policies on the optimal control of faculty rank distributions; control theory permutation of faculty appointments and promotions, and ; study of faculty input coefficients in a linear workload model (Schroeder, 1978).

Models for optimal resource allocation have been developed by Weathersby and others (1970) at the University of California, which include decision variables of undergraduate admissions, faculty hiring and new facilities over a period planning horizon. Another approach was outlines by Geoffvion and others (1971) using a multi-criteria optimization model to assist in departmental resource allocation decisions. The model is structured to provide valuable tradeoffs for departmental chairpersons within institutional and resource constraints. There are other models developed by Turksen and Halzman (1970); Fox

et al.(1967); Walhaws (1971), and; Andrew(1971). That latter include a departmental resource allocation model, allowing choices among teaching, research and other activities via linear and quadratic objective functions; allocation model of faculty between research and teaching; and an assignment model to assign professors to course (Schroeder, 1973).

Advantages and Disadvantages of the Use of Models

Hopkins and Massy (1981) say that the use of models has not met with universal acclaim. Some of the problems have been due, in part, to the extensive data-gathering requirements and implementation costs. Wyatt et al. (1979) concluded that the major problems were more of a managerial than technical, nature, involving such factors as the heterogeneous management styles and the high executive turnover which currently exist in colleges and universities. In addition, there is often resentment among the faculty, and considerable resistance to the adoption of new management techniques (Kleft 1975);(Plour de 1976). Because of a lack of on-campus involvement in the development, faculty often find it difficult to accept these planning models as appropriate. The faculty may feel an alien force has been imposed upon them, viewing themselves as subject to the whims of a computer. Hence, a feeling of antagonism develops, and the implementation for better management is lost in debates over the acceptability of the model (Bleau,

1981, p. 165). Rourke and Brooks (1966) in their investigation of the emerging pattern of managerial and fiscal restrictions on the decision of colleges and university officials support their contention when they state that "university personnel are highly reluctant to accept changes in the operation of the university. This resistance to reform cannot simply be written off as a lack of vision or a defense of vested interests, for it has often been predicated upon a belief that higher education could easily be damaged by administrative innovations which might be perfectly acceptable in other types of organization" (p.1).

The advantages of analytical models in planning and budgeting have received considerable support from the model developers such as Judy and Lewive and model users such as Gary Andrew, Keith Evans, Walter Kenworth, and Tom Mason (Cited by Plourde, 1976. p. 19).

Nelson (1972), in his review of the scope of planning in higher education, concluded that the great virtue of the planning model is its ability to reveal quickly the consequences throughout the university structure of any proposed change in conditions of policies.

This view is supported by Wise (1971): "models can provide the administrator with an integrated view of college operation and, thus, give him new perspectives. It can provide him with a means of testing alternative courses of action before choosing" (p. 59).

Hopkins and Massy (1981) echoe this sentiment in describing the advantages of models in a university setting. They stated that "the use of models helps to organize thinking and display it for systematic view" (p. 16).

Some characteristics of models are important for gaining acceptance among people who have significant decision-making responsibilities, but who may not have technical training. Therefore a model should be simple and it should -provide full coverage to important issues. A model should also be easy to control, stable, and allow for easy communication (Hopkins and Massy, 1981).

SECTION TWO: PLANNING IN BRAZIL

Brazilian Higher Education

Brazilian higher education may best be understood by a brief historical outline of its growth and presentation of its present structure and problems:

Historical Outline

Brazil was the last Latin American country to have a university bearing the name, although it possessed institutions or equivalent level in the Jesuit Colleges of the sixteenth century and the Franciscan Colleges of the eighteenth century (Aby-Merphy, 1973, p. 334).

Between 1808 and 1810 the School of Medicine, the Engineering School and the Military Academy were founded. By

1827 the Academy of Arts, and some Law schools were added. The idea of creating a university was in development and becoming a reality. From 1808 to 1889 twenty two attempts at creating a university were made, but all in vain (Primitivo, 1936).

After the Proclamation of the Republic in 1889, the Constitution of 1891 created the Ministry of Education. In 1912 the University of Amazonas was founded, and in 1915 the University of Parana was opened. However, these universities did not survive for more than three years. Finally, in 1916 another educational reform once again gave the Union (Federal Government) the power to create institutions of higher education. Thus, the first official university in Brazil - University of Brazil - was created (Valadao, 1952).

In 1927 the state of Minas Gerais created its own university. In 1934 the state of Sao Paulo followed suit by founding the schools of Philosophy, Science and Letters, and offered a number of basic studies as well as opportunity for research.

Valadao (1952) states that:

In 1931, with the Statues of the Brazilian Universities, presented in the law, the realities in the universities began to change and to experience a new expansion period. The University of Sao Paulo came up, the University of Porto Alegre was created, and the University of Minas Gerais granted full recognition. The University of Rio de Janeiro was allowed to start in accordance with its realities, new programs with the College of Education, Arts and Letters, College of Mineralogy and the National Institute of

Music. In 1937, the institution became the University of Brazil, with autonomy in finance, administration, discipline, and teaching systems. Following the same structure, after 1946, the University of Parana, the University of Recife, and the University of Bahia were created. The Roman Catholic Church created the Roman Catholic University of Sao Paulo, the Roman Catholic University of Porto Alegre, and the first Protestant university in the country, the MacKenzie University in Sao Paulo, as a municipal institution, the University of the Federal District, in Rio de Janeiro, and the State University of Rio de Janeiro were begun" (Finger, 1978, p. 68).

The phase of expansion began in the 1960's when a new reform law was introduced on December 26, 1961. This law permitted the creation of private institutions of higher education. As a result between 1961 and 1967, 265 institutions were created. In 1982 there were 67 universities, 812 independent schools existed in Brazil, and were distributed as showed in the Table II.

TABLE II
NUMBER OF INSTITUTIONS OF HIGHER EDUCATION
1982

	Federal	State	Municipal	Private	Total
Universities	35	10	2	20	67
Independent Schools	24	70	824	594	812
Total	59	80	826	614	879

Source: SEEC/MEC

The student enrollment in 1930 was 14,000, in 1966 the number was 180.000, and in 1967 more than 200,000, i.e., fourteen times the number of 1930 (Source: Finger, 1978, p. 70). This phenomenal growth, according to Teixeira (1968), has been seen in no other country of the world.

The growth in higher education continued to be high until 1974. Table III shows the enormous growth in enrollment in the period 1966-1974, and the total enrollment in 1982. After 1974, the government decided to suspend, temporarily, the authorization to open new institutions in order to better organize them.

TABLE III
ENROLLMENT GROWTH: 1966-1974/1982

Year	No. of Undergraduate Students	Growth Index	No. of Graduate Students	Growth Index
1966	180,109	100.0	1,790	100.0
1967	212,882	118.1	2,440	136.3
1968	278,295	154.5	4,358	243.4
1969	342,886	190.3	N/A	N/A
1970	425,478	236.2	N/A	N/A
1971	561,397	311.6	7,833	437.5
1972	688,382	382.2	12,351	690.0
1973	772,800	429.0	N/A	N/A
1974	937,593	520.5	17,081	954.2
1982(*)	1,407,987	781.7	28,300	1,581.0

Source: Anuario Estatístico do Brasil, 1970-1976, Vols. 31-36.
(*) Source: SEEC/MEC

Despite the rapid growth of institutions and of student enrollment in higher education, the rate for entrance from high school into higher education is still high, and the number represents only one percent of the total population, one of the lowest in Latin American countries (Braga, 1978). In 1970 the ratio of applicants to the number of places was 2:1. In 1982 that ratio had risen to 4:1, that is, four applicants for each place (Source: SEEC/MEC)

The Present Structure

The Brazilian institutions of higher education are organized as isolated establishments, federations and universities. These post secondary institutions can be private or public the latter being founded by federal, state, or municipal governments. The federal institutions are structured as "autarchies" and "foundations" (Pontes, 1983).

Except for the State of Sao Paulo, because of its relatively strong economic development, almost all public universities are supported by the Central Government. Central Government support of such institutions accounts for almost all their financial resources, since tuition charged by them continues to be a nominal amount (Fidelis, 1982). These public universities, and independent schools represented in 1982, 30 percent of the total number of

institutions, and 39 percent of all students (source: SEEC/MEC).

Aside from the dependence on financial support from the Central Government, other dependencies are so powerful that university administrators cannot decide on the design of professional curricula, the career structure of faculty and staff, their own budgets, or even the process of selecting top university administrators. Finger (1978) in his investigation on university presidents in Brazil concluded:

"... since a majority of the functions in the university administration are defined by federal or state laws - such as tenure, contracts, admissions, calendar, salaries, decision-making bodies, appointment terms, steps in the university careers - the university president has to see that the law is obeyed and that the legal procedures are being followed by the institution" (Finger, 1978, p.89).

Concerning the organizational structure of higher education at the national level, special attention has to be given to the Ministry of Education (MEC), and the Federal Council on Education (CFE). The functions of the Ministry were summarized according to Finger (1978) as the following:

"The Ministry of Education is the body responsible for all education in the country. The Minister represents the nation's president in matter of education; and, as a large part of higher education is provided through federal universities, the Minister has a daily involvement with university key points. To deal specifically with higher education the Minister relies on the Secretary of University Affairs (SESU). This body is increasing its importance lately through leadership in the system, seminars, publications, reports, and by promoting some reflections about problems faced by

the system. The Minister of Education has the responsibility of dealing and decide about university budgets, university expansion, and special programs to be developed. It is even the Minister's duty to propose admissions policy, and to call for meetings to discuss on different levels, national education. It is also the Minister's duty to choose the president of Brazilian federal universities for a four year term, after receiving a list of six names from the university council" (p.79).

Regarding to the Federal Council of Education⁽²⁾ Finger (1978) stated the following:

"Technically, the Federal Council of Education is a department of the Ministry of Education. Their members are appointed by the nation's president and they are representative of all levels of education and differing concerns all over the country. The Council is one of the most important bodies in Brazilian education. From the decisions made by it, changes in the entire system are implemented. Every institution has to be approved by the Council, and after five years the recognition has to be renewed. In general, the Minister and the president (even though they have the power to do so) do not change the Council's decision. The Council meets during one week every month and decides about new institutions, new programs, curricula, internal regulations, faculty credential to teach at the university level, establishes procedures in the system, and other subjects submitted to its attention. The Council's role has increased since its creation. It is possible for it to have complete control over the system, and almost everything depends on its decision" (p.80).

In 1968 a University Reform Law introduced a deeper change in the structure, mission and purpose of Brazilian

(2) The Federal Council of Education was created by the Law of Guidelines and Bases of National Education (LBD) promulgated in December, 1961.

universities. The old model was replaced by a new one, like the American model in terms of departments, faculty, council, academic structure, and careers.

There exist two different legal structures in the federal university system. They are established as "autarchies", and "foundations". According to Montandon (1981) ". . . an analysis of their institutional characteristics showed the existence of fewer administrative controls over the foundations than over the autarchies. Foundations seems to have more autonomy and freedom related to : (1) the acquisition and use of funds; (2) hiring of academic personnel; (3) establishments of personnel salaries; (4) flexibility of administrative functions; (5) planning and control; and (6) accountability" (Montandon, 1981, p. 82).

In general, the Brazilian federal universities all have the same internal structure establishing its forms of governance, independent of their size, legal structure, and complexity. The decision-making power is shared by two councils - the university council and the teaching and research council - and the university president. Besides the president, there are the general vice president, and five or six vice president assistants to the president for areas like research, extension, undergraduate and graduate studies, administration, and planning. These vice presidents are appointed directly by the president for a four year term.

The university council is the decision-making body for new programs, calendar, budgeting, short and long-term planning, general policies, and other general matters. The university council varies in terms of the number of participants, but its composition is, in general, the same. They have in common the president, general vice president, deans, representatives of the colleges, professors, students, and administrative staff. The teaching and research council is "the body responsible for curriculum content, promotion, evaluation, programs of studies, and all other academic aspects, following federal laws" (Finger, 1978, p. 67).

Major problems are currently confronting higher education in Brazil. Among these problems, five will be emphasized because of their possible impact on and importance to planning activities. They are the followings:

1- Excessive centralization

The university administration in Brazil, as mentioned before, is regulated by federal legislation, which includes constitutional documents, laws, decrees, decree-laws, rules, and regulations that give legal procedures for the administrative process in the institutions of higher education. This level of centralization is in itself a structural limitation to the development of institutions (Montandon, 1982, p. 55). "This mass of legislative regulates the process of decision-making, and makes the process suffer from weakness and disorganization" (Teixeira,

1969, p. 55).

2- Disfunctional Bureaucracy

According to Montandon (1981) "University administrative staff in charge of controlling at the university level and rendering account at the state level will rely heavily on categories and legalistic interpretations of established procedures, and as a result will be insensitive and inept at adapting to new demands and situations" (cited by Fidelis, 1982, p. 64).

3- Scarcity of Resources

One of the main problems facing higher education today is the scarcity of resources. Although 70 percent of the federal appropriations for education have been allocated to higher education (Source: Revista Brasileira de Estudos Pedagogicos, 1983) this amount has decreased substantially each year, conducting the universities operating at the lowest level of performance in its history.

4- Inadequate Preparation of Administrators and Appointment System.

Most Brazilian administrators have no special background to qualify them for work in the administration of the universities, since there are no prerequisites for candidates. The president is appointed by the President of the Republic; the general vice president, deans are appointed by the Minister of Education; vice presidents, chairperson are appointed by the president and deans. No previous experience is required, and top administrative

offices generally attract experienced teachers who usually have a limited knowledge of administration (Fidelis, 1982, p. 16).

5- The Organization of the Universities.

Cohen and March (1974), see the universities as in a state of organized anarchy. "Each individual is seen as making autonomous decision. Teachers decide if, when, and what to teach. Students decide if, when, and what to learn. Legislators and donors decide if, when, and what to support. Neither coordination . . . nor control are practiced . . . The "decisions" of the system are products of the system but intended by no one and controlled by no one" (p. 33-34).

Furthermore, colleges and universities have many objectives, and consensus on priorities is generally lacking. According to Cope (1981), the decision making is also different: (1) political considerations may dominate; (2) decision-making is more likely incremental, (3) latitude in policy may be narrower; (4) qualitative evaluating tools are blunter; and (5) participative decision-making among professionals is the likely norm. The constituency is broader, with many interest groups trying to influence decisions and lines of authority are less clearly defined (p.19). These characteristics of the universities, as organizations of anarchy, may lead one to despair of ever making coherent plans.

In short, despite the dwindling amount of resources allocated, the government in Brazil has subsidized higher

education to a very substantial degree. Other problems presented can be associated with the dependence on the central government and the type of organization.

The administration of higher education in Brazil has been undergoing significant changes involving greater participation of its community, and greater efficiency of administrative responsibilities. Efforts have been made, and these problems have been constantly discussed in seminars, conferences within educational institutions.

It is expected that these discussions can introduce many new concepts of management and, to certain degree, a restructuring of the administrative organization of the colleges and universities in such areas of programs of financial management, the concept of academic planning, administration of students services, and administration of physical facilities.

The Development and Organization for Planning

The Development

Planning in Brazil has its roots in the Law of Guidelines and Bases of National Education (LDB) in 1961, which constitute the most important step in establishing a system of educational planning in Brazil.

The LDB, which took fifteen years to obtain Congressional approval, marks the beginning of continuous

and systematic planning in Brazil (Mendes, 1972).

This Law devoted 21 of its 120 articles to higher education and reorganized the National Board of Education into a Federal Council of Education. Among the innovations proposed by this Law was that the Federal Council of Education implement the National Education Plan (Abu- Merhy, 1973).

The first National Education Plan, formulated for the period 1963-1970, was elaborated by four members of the Federal Council of Education, and consisted of no more than a series of general criteria for federal financing to supplement state funds. The plan determined in percentages how the funds would be expended in the elementary and secondary education. It has not defined any criteria to the application of the fund for higher education because the expenditures of the federal government in 1962 with higher education were already almost double those of that fund (Paiva, 1979, p. 4).

The National Education Plan was revised in 1975 introducing definition of a plan for the application of financial resources for higher education. This plan, as Abu-Merhy (1973) stated, could hardly be termed a plan but was merely a collection of qualitative and quantitative measures, and was the last one under the command of the Federal Council of Education. In this regard, Mendes (1972) concluded the following:

"The National Educational Plan was the first and last undertaking by the CFE and

of educators as such, in educational planning. Its significance lies in immediately subsequent inauguration of the technocratic era of education and the fall of the educators as incapable of approaching key social problems with a sufficiently dynamic and comprehensive intelligence. However, the rise of the technocrats was not an auspicious event, nor should we lament the twilight of the educators. After 1964, when the technical approach of the government became grim, the LDB was systematically debilitated. It was replaced by "reforms" - the legislation of the educators - and "plans" the economic schemata of of technocrats" (p.42).

Recently, the Ministry of Planning has recognized the need to involve MEC in its planning activities. However, from 1967 to 1969, educational planning in Brazil was under the jurisdiction of the Ministry of Planning with the preparation of the Decennial Plan for Economic and Social Development (1967-1976) and the Strategic Program for Development.

The 10 Year Plan and Strategic Program for Development

A 10 Year Plan was prepared by economists from the Institute of Economic and Social Planning (IPEA), an organ of the Ministry of Planning. Its most important feature was that for the first time in Brazil, a comprehensive assessment of the state of education was prepared. The diagnosis was comprised of two parts covering the following points: a) the supply and demand in education; b) the supply of educational services; c) productivity of the educational

system; d) expenditures on education; and e) general aspects of Brazilian manpower. The second part of the plan was an analysis of specific problems of educational system and their relationship to the labor market and problems concerning immigration, emigration and technical assistance" (Paiva, 1979, p.44).

The influence of the economists in the formulation of the 10 year Plan was very strong. Education was seen as a means for economic development, as can be observed in the objectives defined in the plan:

- a) Brazilian education must permit the consolidation of the structure of human capital in the country;
- b) Education must become a factor in income redistribution;
- c) Brazilian education must promote the necessary conditions for the community development;
- d) Brazilian education should aim at improving the national political process;
- e) Education should serve as an instrument for popular interaction in the development effort (Plano Decenal de Desenvolvimento Economico e Social, 1967-76, p. 15-17).

The Strategic Program for Development (1968-1970) has been considered one of the most comprehensive plans in Brazil. Its objectives were the expansion and improvement of the educational system (Kowarich, 1972). The educational plan was detailed at the level of programs and projects as

such: a) Special Priority Programs; b) Expansion of the National System of Teaching; c) Manpower training; d) "Training and Upgrading of teaching and administrative personnel; e) Scholarships and student aid; and f) Research and data collection (Paiva, 1979, p.48).

The Sectoral Educational Plans

In 1967 the General Secretariat of the Ministry of Education was founded as an agency for planning, budget, and coordination. However, after the 1972 educational plan, it was put under the jurisdiction of the MEC. Until then, as Mendes (1972) stated, owing to the weakness of the MEC, educational planning, largely by default, was the responsibility of the Ministry of Planning. From 1972 three Sectoral Educational Plans have been formulated covering the following periods: 1972/1974, 1975-1979, and 1980/1985.

The First Sectoral Plan (1972/1974) was preceded by no specific diagnosis which would provide the data to define its general targets, and was divided into two parts: in the first part, the topics were vague as to the role of the educational sector in the development process; for the second part, a list of 31 projects providing information on the reasons for the projects, objections, executing conditions, and institutional arrangements for implementation. Regarding higher education 8 of the total of 31 projects were listed (Paiva, 1979, p.52).

The Second Sectoral Plan (1974/1979) adopted the same process used in the First Plan, and concentrated more on the expansion to graduate enrollment and activities for the improvement of the educational system. The emphasis in the Second Plan was to connect the social needs of the population with the role that education can play in meeting them (Brasil, MEC, II Plano Setorial de Educacao e Cultura 1974-1979).

The Third Sectoral Plan (1980/1985), also adopted the same approach used in the First and Second Plans. However, its emphasis was more in the elementary education. In terms of priority, it considered elementary education in the rural areas to be the first priority, with elementary and high education in the urban areas as its second priority.

The Third Sectoral Plan criticized the role of the university in terms of achievement of the social and economic needs of the country. According to the theoretical concepts outlined in the Plan, higher education has been excessively elitist, and its efforts at teaching, research and extension have not succeeded in meeting the basic necessities of the population (Brasil, MEC, III Plano Sectorial de Educacao e Cultura 1980/1985, p. 11).

It also emphasized the importance of planning and administrative modernization, the efficacy and efficiency of the administrative system, and the system of resource allocation as a means of achieving its objectives. In this regard, resource allocation was emphasized in terms of its

importance as an instrument for a better distribution of resources among the geographical regions of Brazil, and as a means of providing education to all people, regardless of their socio-economic status.

In summary, all of the Sectorial Plans failed to start with an analysis and diagnosis of the educational system, which should precede all plans. Moreover, as Paiva (1979) said, "the First and Second Plans were not formulated starting with the identification of a desired future state of affairs, but from the formulation of isolated projects. In both plans the definition of what the "priority project" was, remained unclear. These plans seem to indicate that all educational projects were of priority importance, since there was no distinction made between projects that were given top priority over other projects, or a distinction among levels of priority of importance among the educational projects" (p. 57).

The Third Plan established levels of priority in terms of general education. However it did not specify in detail the ways of achieving them. It is customary to say that there is no educational policy in Brazil for a short or long range planning. There are, in fact, as Oliveira (1982) stated, some politics and guidelines in the formulation of ideologies.

The Organization

The current organization for planning in Brazil is based on Decree-Law No. 200(2/25/67), modified or complemented by Decree-Law No. 900 (9/29/69); Decree-Law No. 991 (10/9/69), and Decree-Law No. 1093 (3/17/74). Another important instrument is the Law No. 4320 (3/22/64), which established the practice of program budget.

Decree-Law No. 200 "designed to free administration from the constant appeals to law and to create, thus, internal administrative dynamism" (Mendes, 1972, p. 25) conceptualized planning as an instrument for promoting the social and economic development of the nation and to assure national security.

The Decree-Law drew a distinction between planning at the national and at the sectorial levels. At the national level, the sectorial plans have to be organized and consolidated by the Ministry of Planning, and submitted for approval of the President of the Republic. Each year a program budget is prepared to provide details for the execution of the annual program with the period of the plan coinciding with the term served by the President of the Republic.

The General Secretariat, and the General Auditor (Inspetoria Geral de Financas), existing in each Ministry, are the sectorial units of the national system for planning and budget, and financial administration accounting and

auditing, respectively. The General Secretariat each year coordinates and consolidates the plans, budget and modernization of the administrative activities within each Ministry, and submit to the Ministry of Planning for integration in the national plan.

Within the Ministry of Education, the planning activities have been defined as follows:

- 1- Recognition of the educational needs of the different educational levels, and of the different educational programs.
- 2- The definition of policies and strategies; establishment of guidelines for the functioning and development of the educational system and adoption of measures to guarantee the performance of the objectives defined in the educational policy.
- 3- Programming, which can involve the preparation of plans, programs and projects to be executed directly or indirectly by the Ministry of Education.
- 4- Financial and technical assistance administered to the States and Federal District system of education (Paiva, 1979, p. 69).

The organization for planning flow is the following:

- 1- First, the General Secretariat of the MEC receives a total amount of allocations for all of its departments and units from the Ministry of

Planning;

- 2- Each department of the MEC receives a proportion of the resources from the General Secretariat. For the institution of higher education these resources are allocated by the Secretariat of University Affairs (SESU).
- 3- The SESU, after receiving its portion, allocates a certain amount for each unit, i.e., the universities.
- 4- The universities, through the Vice President for Planning, allocate these resources among its programs, according to its priorities, and submits them to the University Council. However, these priorities, instead of being a concern for the universities, are established by the SESU in accordance with the General Secretariat of the MEC. The only role played by the universities is that of distributing the financial resources among the previously determined programs. This process shows, once more, the tendency of control, centralization and dependence on the central government.

The next step is the reverse of that described previously: the universities submit their proposals for approval in accordance the predetermined amount, to the Secretariat of University Affairs; the SESU, after consolidation of all its units, to the General Secretariat,

and so on, until consolidation of the Sectorial Plan, and integration in the National Plan.

The criteria for defining a project as "priority" are defined by the Central Unit of the National Planning System. According to Paiva (1979) a priority project has to contain some of the following characteristics:

- 1- to be important or relevant quantitatively or qualitatively for the execution of the overall development policy.
- 2- to be economically significant for regional development.
- 3- to require a great amount of investment, or to be quite significant to the whole program of a specific sector, when implemented.
- 4- to be related to critical variables of the development process or with changes in sectors considered of "priority importance."
- 5- to be defined as a project of strategic importance in the official documents of the government (p. 76).

It is important to emphasize once more that all programs have to be compatible with the guidelines adopted by the Ministry of Education, as well as those of the central unit of the National Planning System.

"The degree of integration of the departments' participation in the educational plan depends on, among other factors, the nature of the guidelines adopted and the coordination activities performed by the General Secretariat, and

Ministry of Planning" (Paiva, 1979, p. 72).

Summary

Because of the limited, almost non-existent bibliographies dealing with the efficiency of university administration in Brazil, and in order to generate a framework for this study, this chapter was divided into two sections. The first section is based on the American literature related to planning and management science applied to higher education; the second describes the structure of Brazilian universities and its dependence on and relationship with the governmental agencies.

A review of the literature showed planning to be a relatively new concept in the university setting. Even in American institutions the study of planning as an administrative process began to appear in the literature no sooner than the 1960's, and came to be increasingly important in the nineteen seventies and eighties.

In Brazil, little concern has been shown for the levels of efficiency existing among university administrations of federal universities. Federal subsidies for education are relatively easy to obtain in Brazil.

It is often said that Brazil is a country of contrasts. Although 70 percent of the federal budget for education is devoted to higher education, less than one percent of the

population actually continuous their education to this level, and almost 20 percent of the population has had no formal education (Source: Anuario Estatístico do Brasil, 1981). For this reason, this review stressed the need for more efficient management of the universities in Brazil particularly where planning is concerned. Planning in the views of several authors, is the primary managerial function performed by a particular activity. A lack of planning results in waste and inefficiency.

The need for planning studies in Brazil is beyond question. A search of the literature revealed several problems which are confronting Brazilian higher education today. Planning could be one of the solutions to these problems. Planning as conceived in this study, is a process of formulating an alternative set of decisions by optimal means, with a view to aiding decision-makers to face the future with foresight.

CHAPTER III

STUDY METHODOLOGY

Research Strategy

As stated previously in Chapter I, the basis of this study was a survey approach through which the author aimed at describing the planning process at three selected federal universities in the state of Minas Gerais, Brazil. The author deems the purpose of this study to be consistent with that of an explanatory study carried out "to gain familiarity with a phenomenon or to achieve new insights into it, often in order to formulate a more precise research or to develop hypotheses" (Selltitz et. al., 1959, p. 50). According to Selltitz et. al. (1959), it is appropriate to consider explanatory studies as an initial step in a continuous research process. In practice, the most difficult portion of an inquiry is its initiation.

The researcher also viewed this study as failing within the scope of a qualitative and quantitative research. Philips (1968) observed that "some social scientists prefer highly qualitative and precise techniques and there are those who prefer to stay as close as possible to "realistic" situations and conduct research along qualitative lines.

Such differences are met within each of the social sciences, but entire disciplines also tend to be located on the qualitative-quantitative axis" (p. 68).

It follows, then, that modern research must reject as a false dichotomy the distinction between "qualitative" and "quantitative" studies. The fundamental questions to address about all research techniques are those dealing with the precision, reliability, and the relevance of the data and their analysis (Goode and Hatt, 1952, p. 313).

Specifically, descriptive research was undertaken in this study using the following sources of information: (1) questionnaires; (2) interviews; and (3) records, official and unofficial documents kept in the universities which are related to planning, and the official records of the meetings of the university council in the last two years.

The Study Population

Considering a population as a set of elements about which the author wishes to make an inference (Scheaffer et. al., 1983), the study population consisted of Brazilian federal universities represented by three selected federal universities in the state of Minas Gerais, Brazil.

The author's decision to study the planning process at these universities was due to the following factors:

- 1) Brazilian federal universities consist of 35 institutions located in various geographical

regions of Brazil, the fifth largest country of the world in area. Therefore, it was necessary to limit the number of institutions studied. The need to curtail travel time and expenses dictated that this study should involve only a few institutions. The institutions chosen were those closest to the author's state of origin;

- 2) The author had contacts in the universities that facilitated the collection of the data needed to carry out the study;
- 3) Brazilian federal universities differ in size and legal structure. It was supposed that these factors could be important in studying the planning process, due to the following considerations:
 - a) Size. The size of the universities as determined by the number of students, professors, and staff, can be related to the planning process. However, this premise will be examined later in the analysis of the data. The three universities used in this study can be considered as large, medium, and small institutions.
 - b) Differences in legal structure. As previously mentioned there exist two different legal structures in the Brazilian federal universities system: "autarchies" and

"foundations". According to Montandon (1981) this difference is related, among other factors, to planning. Two of the universities which were the object of this study are autarchies, and one is a foundation.

- 4) Finally, private and state universities were not considered in this study. They differ from federal institutions in their sources of financial support, the kind of organizational structure, and the extent of centralization. Thus, they may have different concepts of and differing degrees of emphasis on planning activities.

The Participants

This study focused on the activities conducted by planners and decision-makers existing at each institution. It was comprised of the following individuals:

- a) Planners. As previously defined, they are the vice presidents for planning existing at each institution. They are responsible for the planning activities and report directly to the president of the university;
- b) Decision-Makers: are those members of the university councils. The number and category of individuals belonging to the university council is variable and proportional to the size of the

universities. They represent the actual leadership of the universities and are distributed according to the Table 4 below:

TABLE 4

MEMBERS OF THE UNIVERSITY COUNCIL

PresentPosition	UNIVERSITY			
	A	B	C	Total
President	1	1	1	3
General Vice President	1	-	-	1
Vice Presidents	-	3	2	5
Deans	19	11	5	35
Vice Deans	18	-	-	18
Representatives of the Colleges	18	3	-	21
Representatives of the Professors	4	3	4	11
Representatives of the Staff	2	1	-	3
Representatives of the Students	9	3	2	14
Representatives of the Community	3	1	1	5
Others	-	1	-	1
Total	75	27	15	117

The researcher viewed the participants to be a valid representative for this study. The individual participants in this research - Vice Presidents for Planning - are

persons in charge of planning activities in the universities. In their capacities, they are required to have an intense and comprehensive understanding and knowledge of planning activities. On the other hand, the second part - members of the university council - are persons representative of academic leadership, and all colleges and categories (professors, students, administrative staff, and community) in the institutions are represented. The questions posed to them sought responses to some highly complex issues and policy matters, and the relative relationship of the respondents to them.

Data Collection and Instrumentation

The Development of Instruments

Three sources of information were used to collect the data to carry out this study: (1) questionnaires; (2) interviews; and (3) planning literature, published and unpublished documents, and records of the meetings of the university council in the last two years.

The Questionnaire

A self administered questionnaire (Appendix A) was the only research instrument used with decision-makers, because the large number of participants would require a prolonged stay of the researcher in Brazil with excessive maintenance costs.

The four-page questionnaire comprised 22 open and

closed end questions was adopted from other questionnaires used in previous studies as was used by Paiva (1979), and Fidelis (1981). For most questions, the respondents were asked to check the appropriate response. For others, they were asked to respond according to the instructions.

In the first page of the questionnaire the objectives of the research were presented, and the respondents were assured that their responses would remain confidential. Although the names of the respondents will not be cited in this study, the questionnaire was individually coded by the researcher according to the respondent's name, in order to control its return.

The questionnaire sought information covering the following topics:

Decision-makers' personal background; responsibilities in their present position; concepts of educational planning; their participation in and influence on planning; the activities they perform in planning activities; their influence in the formulation of plans; and obstacles and problems encountered by them in performing their duties.

The Interview

Interviews were conducted with "planners" (vice-presidents for planning) existing at each university. The interview allowed the researcher to "ask complex questions at length and depth, and to obtain fully detailed answers

through clarification and probing (Kidder, 1981).

A comprehensive interview guide (Appendix B) with 49 questions, organized on the basis of the questionnaire and research conducted by Lahr (1981), was used for asking questions related to the organizational structure for planning such as: the participants in the formulation of plans, projects and diagnosis; persons or sectors involved in the process of defining directives and objectives of the plan; training related to the performance of their activities; attitudes and perceptions toward planning; the techniques and models used in the formulation of plans; obstacles in the performance of their duties, etc.

Notes were taken during the interview. A tape recorder was used, when authorized, to cover points that were not completely annotated. The researcher respected the respondents wishes as to what notes could be taken.

Other Sources

The data from other sources (governmental records, internal reports, published and unpublished documents, etc.) were used. These documents were requested together with the application of the questionnaires and interviews.

Pretesting the Instruments

The first draft of the questionnaire and interview guide were submitted for evaluation to some students of the College of Education/Michigan State University during

Winter/84.

The instruments were translated into Portuguese and submitted to a more formal review with three former vice-presidents of one of the universities included in this study, during Spring term 1985. The researcher interviewed each pretest respondent, and incorporated all suggestions in the final revision of the instruments. Pretest respondents were asked to put themselves in the roles of the planners and decision-makers.

Finally, a pilot test was conducted with a former president, a provost, two former vice presidents, and two outstanding professors of the College of Education of the same university pretested. All of them were former members of the university council. The researcher interviewed two of these individuals and delivered four questionnaires.

The purpose of the pretest and pilot test was to determine the appropriateness and the content validity of the items, as well as the time needed to complete the interview and the questionnaire. The pilot test revealed the necessity of reformulating some questions in order to adjust the instruments to the purpose of this study.

Procedures for Data Collection

The first step for data collection was to contact one of the universities, where the researcher is a member, for institutional support. Contacts were made with the other two

universities and after agreement the researcher traveled to Brazil in order to collect data for this study.

The general procedures were as follows: first, the researcher met with the presidents of the universities, explained the objectives of the study, and asked them for institutional support. After their consent was obtained, an official letter of the university signed by the president was attached to the questionnaire and sent to all members of the university council. Each university distributed the questionnaire with complete instructions and a self addressed envelope. A person was charged with the control of the questionnaires returned at each of these universities. The cover letter of the questionnaire also had this person's name and address.

Two weeks later a personal letter from the researcher was sent to nonrespondents. One month later a telephone contact was made to the remaining non-respondents by the person responsible for the questionnaires returned in each university. At the conclusion of the follow up and telephone calls, 72 of 117 questionnaires had been returned according to the Table 5.

During the visit to the president in each of the universities, and after seeking permission and orientation from the central administration offices, contacts were made with the vice presidents for planning and appointment was established. During the interview the vice presidents for planning displayed extreme cordiality and interest in the

study. The average time of each interview was approximately three hours.

TABLE 5
RESPONSE RATES FOR RESPONDENTS IN VARIOUS
ADMINISTRATIVE POSITIONS

Administrative Position	Questionnaires Sent	Questionnaires Returned	Response Rate
President, General Vice President, and Vice Presidents	9	6	67%
Deans and Vice Deans	53	37	70%
Representatives of the Colleges, Professors, Staff and Students	49	27	55%
Representative of Community and Others	6	2	34%
Total	117	72	62%

Information Analysis

This descriptive exploratory study of the planning process at federal universities in Brazil, did not purport to test hypotheses or make predictions. According to Selltiz et al. (1981) "much of a survey research is an effort to generate ideas rather than to test them" (p.69). Descriptive statistical methods were used in analyzing the information gathered from questionnaires, interviews, and documents

related to planning. Among these methods were frequency distributions, means, percentages, and cross tabulations used.

The investigator decided to analyze the information in four sections according to the order established in the statement of the purpose of this study: structure for planning, techniques and models used in planning activities, concepts, attitudes and influence an planning, and the obstacles and problems encountered in planning. When appropriate, comments were interjected regarding the results obtained, comparisons are made among the universities, and responses are transcribed according to the respondent's answers.

This investigation was oriented toward the identification of needs for further research on the planning process and, more specifically, on the activities carried out by planners and decision-makers in this process. It is expected, however, that the findings, conclusions, and recommendations of this study can be generally applied to other federal universities in Brazil, since all of them have similar structures, and are controlled and supported by the same governmental entities.

CHAPTER IV

ANALYSIS OF THE INFORMATION

Introduction

In Brazilian universities the planning process for administrative decision-making is a relatively new concept. The number of institutions showing an interest in developing planning systems is small. However, the need for planning is urgent. More efficient use of resources would be possible if the institutions of higher education were familiar with what techniques have been used and how successful they are. Since there is considerable pressure for efficient use of scarce resources, the efforts of institutions of higher education in Brazil should be accorded top priority.

The author, recognizing the need for planning and the limited number of studies in this area, set out to study the planning process at three selected federal universities in Brazil. These universities, for purposes of convenience, are referred to as universities A,B, and C; and their names were not cited in any part of the study.

Under "Purpose of the Study" in Chapter I, the author proposed to investigate the following aspects of the universities related to planning:

- 1- structure for planning;

- 2- identification of methodologies and techniques being used;
- 3- concepts, attitudes, and the influence had by planners and decision makers on planning;
- 4- to identify the obstacles and problems encountered by planners and decision-makers in performing their duties;
- 5- to suggest or recommend planning models or techniques to be used in planning activities.

In order to accomplish the above study, three sources of information - questionnaire, interview, and published and unpublished documents related to planning - were used. In this chapter the findings gathered from these instruments, are presented and analysed in four sections according to the order previously established. The last item under statement of purpose for the study "to suggest or recommend planning models or techniques" will be presented in Chapter V.

A total of seventy-five persons (respondents) participated in the study, corresponding to a final response rate of sixty-two percent of the total population. As showed in Table 5, the respondents are representatives of all administrative positions, categories and classes of the universities. Thus, it is reasonable to assume that the findings, and conclusions can be considered representative of the whole population of the three universities.

The Structure for Planning

Different aspects of the structure for planning are presented in this section. The concept of structure as defined in this study, refers to the institutional organization for planning. Also involved are the considerations of the participants in planning, and the groups working in the planning units. The following characteristics are dealt with in this section: background information (sex, age, rank and contract status, and degree), experience, qualifications, duties they perform, the nature of planner's activities, and the planning unit.

A. Background information. The participants were identified as the vice presidents for planning (planners), and members of the university council (decision-makers). The vice presidents for planning with responsibilities defined in the statutes of the universities were the persons having the responsibilities of carrying out the planning activities. They were appointed directly by the president, and no previous experience in planning and university administration, no formal degrees were deemed to be important factors in the selection process. The average age of these subjects was 44 years.

In responding to the question about the highest degree obtained, none of them held a doctoral degree, and one had a master's degree in management. One of them had an undergraduate degree in university administration, and one

had a specialization in this area.

The university council is the decision-making body for new programs, schedules, budgeting, short and long-range planning, general policies, and other general matters. Their members are representatives of all categories and classes in the institutions. Thirty-seven percent of the total were members of the decision-making body by virtue of the positions they held in the university (president, general vice president, vice president, directors of administrative organs, deans and vice deans), and sixty-three percent were chosen by the voting among the university community. The typical member is a male (83%) with an average age of 44 years, holding the rank of associate professor (45%), and working in exclusive dedication.²

In terms of the highest degree twenty-six percent of the decision-makers held a doctoral degrees, and 33 percent had masters' degrees. Forty-two percent of the doctoral degrees were obtained in the same institution where the decision-makers was a member; five percent in other Brazilian universities; and 53 percent in foreign universities mainly in Europe. The master's degrees were obtained by 29 percent in the same institutions; 46 percent in other Brazilian universities; 4 percent in the U.S.A.; and 21 percent in foreign institutions. In terms of

(2) Dedication exclusive means that the professor cannot work in any other institution.

academic disciplines one was in Arts, while 26 percent earned their doctorates in the area of Biomedical and Health Sciences, 37 percent in Engineering and Physical Sciences, and 37 percent in Humanities and Social areas. The Master's degree were obtained in the Biomedical and Health Sciences (33%), Engineering and Physical Sciences (25%), and Humanities and Social Sciences (42%). Table 6 summarizes the decision-makers' highest degree according to the institution and academic area.

Table 6
Decision-makers' Degrees According to Institutions
and Academic Areas

Degree	No. Re- spond- ent	a				b			
		Institution				Academic Area			
		1	2	3	4	1	2	3	4
Doctor- ate	29 c (26%)	8 (42%)	1 (5%)	- (-)	10 (53%)		5 (26%)	7 (37%)	7 (37%)
Master	24 c (33%)	7 (29%)	11 (46%)	1 (4%)	5 (21%)	-	8 (33%)	6 (25%)	10 (42%)

(a) Institution

1. Same
2. Other Brazil
3. U.S.A.
4. Other

(b) Academic Area

1. Arts
2. Biomedical and Health Sciences
3. Engineering and Physical Sciences
4. Humanities and Social Sciences

(c) Percentage in relation to the total number of respondents.

B. Experience. For the questions "How did you come to be vice president for planning?" and "What background (campus experience, education, administrative roles, etc.) do you think qualified you for the position of vice president for planning?" several factors were identified as being the reason of the choice. Among these factors are:

- 1- Personal relationship with the president.
- 2- Experience as a professor within the same institution.
- 3- Previous administrative experience within the same institution.
- 4- Experience in private organizations.

The first two factors were cited by respondents as the main consideration for their selection. In terms of professional experience, one vice president indicated knowledge and experience in university administration of almost 30 years, having occupied several top positions in the university, in governmental agencies, and international organizations. The other vice presidents indicated experience in private organizations and little experience in university administration. However, they had been working in the same university for almost five years.

As stated previously, the number and categories of members on the university council vary and are proportional to the size of the institutions. Fifty-three percent of the members are top administrators of the university, 27 percent represent the academic community, and 20 percent are

representatives of the administrative staff (3%), students (12%), and community and others (5%). They were asked how many times, and for how long they have been members of the university council. Results indicated that 76 percent had been members once, 18 percent members twice, 7 percent three times, and 1 percent four times. The average years of experience in decision-making was 2.5 years (31 months), and they expected to continue to be members of the university council for another year.

C. Qualification. To determine the qualifications of the members of the university council to exercise their decision-making functions, a high percentage of the respondents (28%) conceded that they had insufficient knowledge of university affairs and its relationship with governmental agencies. Fifteen of those who claimed insufficient knowledge to carry out their duties gave their reasons and suggested ways to improve it. Among these suggestions, the most important were:

- 1- Improving relationships between the university council and the top administrators.
- 2- Obtaining better orientation from each sector of the university.
- 3- Improving the system of communication and information of university affairs from the central administration.

- 4- Improving lack of sufficient information from the university on its problems and the role it plays. Many of the university's problems are due to the fact that the university lacks a clear idea of the problems it faces and its role in solving them.
- 5- Increasing conferences and visits among the university units.
- 6- Improving a better analysis of the university documents.

When this finding was analyzed in relation to the category of the respondents, it was surprising that the negative answers come from nine members of the top administration (4 deans and 5 vice deans), eight from the academic community, and three from the representatives of the students and the community. One possible explanation for this result might be that many top administrators are alienated from the rest of the university, and do not have the experience or the appropriate skills to remedy the situation.

In response to the question "Do you think that special preparation should be provided for vice presidents for planning to perform the planning functions?" In addition 54 percent of the decision-makers agreed that both formal and informal qualifications is an important factor in the process of selection by the vice presidents for planning. All planners and 45 percent of the decision-makers agreed that a formal qualification is not an important factor in the selection process. In the formal program, a doctoral

degree in university administration (43%), specialization in the same area (30%) and a master's degree (27%) were the formal qualifications most often cited. Among the informal programs, 63 percent of the total respondents agreed that experience in university administration was the most important, followed by on-the-job-training (13%), and the remaining (24%) were distributed among short-term courses, internship, experience in management, knowledge of the university life, and competency.

D. Activities Performed. A wide variety of activities performed by the participants were identified. Table 7 presents among these the activities that were identified by the vice presidents for planning, in order of importance.

Other activities deemed less important but identified by the respondents as demanding a significant portion of their time were: members of several committees and commissions, and political activity in support of the president and providing a communication link among parties in the universities.

A wide range of activities (27 reported) performed by decision-makers was described. These activities were grouped in six different categories, and listed according to the order of response frequency.

- 1) Activities related to university affairs.

Table 7

Activities Performed by Planners Identified by the
the Respondents (Vice Presidents for Planning)

Activities	Universities		
	A	B	C
Coordinating and participating in the formulation of the annual budget.	x	x	-
Coordinating the preparation of the physical plans.	x	x	-
Assisting the president in the management of the every day problems of the institution.	x	x	x
Representing the university in governmental agencies.	x	-	x
Participating in the formulation of projects submitted to other agencies for funding .	-	x	-
Coordinating and defining the plans of the institution.	x	-	x
Coordinating the activities of administrative and academic accountability.	x	-	-
Evaluating the planning process of the institution.	-	-	x

Forty-three percent reported activities related to the organization and structure of the universities. The most frequently cited activity was involvement in decisions related to changes in the by-laws and format of the institutions (10), and the establishment of directives related to university policies (8). Other activities were participation in the formulation of projects and sub-projects, decisions related to the daily problems, activities in the area of teaching, research and extension, and administrative problems.

- 2) Member of administrative commission in the university council.

All the issues submitted to the university council are given prior consideration by committees. In general, there are three different committees for various purposes. Their members are chosen by a vote of the same council. Twenty-two percent of the decisions-makers reported that their most important duty was to be member of these committees.

- 3) Activities related to finances and budgeting matters.

Twelve percent of the respondents cited their participation in financial and budgeting matters. Specifically these activities are: to discuss the university finances, to approve the budgeting, and to participate and discuss the financial problems of the institution.

- 4) Activities related to university autonomy.

Eleven percent answered that their main role on the

university council was to give the university enough political support in the development and solution of the problems and to preserve and defend its autonomy. Four of the respondents (6%) answered that their participation was to preserve the role of the institution as an educational institution for the society.

5) No participation.

Five of the participants (7%) answered that they had no significant role on the university council. Two of them, both belonging to University C, explained this by the fact that the university council met only occasionally.

6) Other activities.

Other activities reported were participation in directives in the administrative and disciplinary processes (3); to approve the process of selection, hiring, and upgrading the qualifications of the professor and administrative staff (2); participation in the process of selection of the president of the institution (2); and to defend the interest of his college and category in the university council (3).

Among the activities described above, it can be observed that none of them referred to their participation in activities related to planning, although the statutes of the universities specify this function as one of the duties of the university council. A detailed analysis of the content of the meetings of the university council over the last two years, revealed that no issue related to planning

was submitted to that body for consideration. This leads to two obvious and conflicting conclusions: the first is that there are no plans to be submitted; the second is that plans are not submitted for decision-making. This conclusion will be examined in the next sections.

E. The Nature of Planners' Activities. To characterize the nature of the planner's activities, vice presidents for planning identified and estimated the percentage of the time spent on each of the following categories (Table 8):

The amount of time was based on a 40 hour work week. The average hours spent was 16 hours/week in technical activities, 10 hours/week in interaction activities, 7 hours/week in administrative routine, and 7 hours/week in contact with the academic community.

It can be inferred from this finding that the greatest amount of time spent by vice presidents for planning has been spent on routine administrative duties, and contacts with outside agencies and members of the university community (60%). Thus, planners have been taxed with trivial details devoting more time to administrative functions than to planning. It has been common among administrators of Latin American universities to waste a valuable part of their time on administrative routines, when subordinate personnel would be adequate for such tasks (Gulerpe Report: Grupo Universitario Latinoamericano de Estudio para la Reforma y Perfeccionamiento de la Educacion, 1968).

Table 8

Percentage of Total Time per Week Spent by Planners

Nature of Activities	University		
	A %	B %	C %
Administrative (e.g. administrative re- ports, routine, office work, etc.)	20	20	15
Technical (e.g. completion of studies, formulations and analysis of projects, preparation of the technical reports, attendance of technical meetings, moni- toring the implementation of plans, etc.)	40	35	45
Interaction (e.g. interfaces within the organ, with other organs, with external agencies, with the public, etc.)	20	30	30
Contacts with deans, chairpersons and stu- dents.	20	15	20
%	100	100	100

To clarify further the nature of planners' activities, the next question for the vice president for planning was to rank the tasks they perform according to the order of importance. Four different categories of activities were

suggested from the UNESCO (1980) list of activities performed by planners. The results were summarized in Table 9.

Table 9
Categories of Activities Performed by Planners

Categories of Activities	University		
	A	B	C
Administrative	4	4	4
Technical	3	3	3
Educational	1	2	1
Political	2	1	2

Obs: 1, most important; 2, next in importance, etc.

Comparing this question to the preceding, one finds no reciprocity between them. Although the vice presidents for planning spent most of their time on technical activities (40%), they consider them to be third in importance for the planning process. In this regard, Wolfe (1965) described the Latin American planners as technicians, using techniques to produce a consistent and feasible plan, but neglecting social and political factors as extraneous to planning. He urged Latin American planners to play a political role in the adoption and implementation of plans (In Paiva, 1979,

p.110).

F. The Planning Unit. The universities under consideration have units or departments charged with planning functions. In the universities B and C, the planning units were in existence less than five years, and the other for more than fifteen years.

A team of different specialists provided the human support for the planning units. These persons were recruited among the in-house administrative staff in the universities. No previous experience in management or planning was cited as an important factor in the process of selection. In terms of years of experience, almost all followed an on-the-job-training program, and had served in the planning unit since its inception. According to the vice presidents for planning, the majority of these personnel demonstrated enthusiasm for and personal commitment to the opportunity to work in the planning unit.

In general, the quality and size of this staff can be considered satisfactory. University A, which has the largest number of students, also had the largest number of technical personnel working in the planning unit (21), followed by university B (9), and university C (11). Only two technicians from University A held graduate degrees, both in university administration. The others completed their undergraduate course of study in several fields of study, and participated in informal programs such as short-term courses and internships under the Ministry of Education.

Among the tasks performed by these persons, the following were cited: budgeting, physical planning, administrative accountability, collection of statistical data, and administrative and academic planning. No correlation was found between the academic degree held and responsibilities performed by these individuals, except for the physical plan executed by architects.

In summary, although the president is the chief operating officer in the institution, legal authority for the operation of the universities in Brazil is vested in the university council. In almost all cases, university council members have served as professors, and frequently as deans of a college or have occupied administrative positions. Thus, they are expected to be involved with the problems and policies of their institutions.

Vice presidents for planning, except in the university C, do not participate in the decision-making organs. Their authority, and official involvement with the university community and administrative support for their decisions, are under the jurisdiction of the president's office. However, these persons who are responsible for the coordination of plans, and administrative counsel, play an important role in the decision-making process through personal influence, and their relationships with the presidents. Their actions and procedures have to be consonant with the president's ideas and opinions. Since these person play an important role in the planning process,

they should be skilled and competent technical administrators capable of generating a creative and critical view of education.

Techniques and Models Used in Planning Activities

One major concern of this study was to identify techniques and models used in planning activities. Planners were asked if there are certain specified procedures technique or planning models which their universities follow in their planning, and whether their universities have planning documents or assessments of their present situations. The results appear to indicate that the planning activities have not been executed using sophisticated techniques, nor have the planners been familiar with the terminology used to define planning models. According to Ruscoe (1969) Latin America educational planning has not been known for using sophisticated planning techniques, but has used, as significant activities, diagnoses of the educational situation.

As suggested in the review of the literature, a diagnosis implies the collection of factual information about the existing and past situation, and should precede the plan. The existence of a diagnosis was confirmed by the planners, and 53 percent of the decision makers in universities A and B. Planners at university C recognize the importance of a diagnosis, but have not conducted a study to evaluate the present situation. In universities A and B,

there is no comprehensive document, but there are some individual projects for assessing the following areas:

- 1- Financial situation (universities A and B).
- 2- Amount and quality of research (university A).
- 3- Graduate evaluation (university A).
- 4- Physical necessities of colleges and departments (university A)
- 5- Teacher/students ratio (university A)
- 6- Administrative reform (university B).

Forty percent of those responding affirmatively as to the existence of diagnosis stated that the purpose of a diagnosis was to forward the information to governmental agencies. Twenty-eight percent felt that the purpose of a diagnoses was to keep the university informed of its activities. Sixteen percent answered that its purpose was to provide information for planning decisions. The remaining sixteen percent to select areas for "priority projects or programs."

Seventy percent of the respondents indicated the diagnosis to be the work of their own university. Of this total, 21 percent reported that these studies were prepared by the technical personnel working in the planning unit, 30 percent were prepared by the planning unit in cooperation with other units of the university, and the remaining 19 percent were prepared by other units in the university. In the case of university A, studies to assess graduate education, and research were conducted by the vice

presidents for graduate studies, and research, respectively. Owing to the lack of technical staff in these vice presidencies, these studies were done with the collaboration of the academic community.

Respondents at all three universities acknowledged they prepared no long-range documents of any kind. According to the respondents, their universities receive a general orientation from the Ministry of Education, and the only role played by the universities is that of distributing the financial resources among the previously determined programs and projects. Universities in Brazil are not afforded the latitude of drawing up their own plans, and all programs and projects must comply with the guidelines set by governmental agencies.

Although there is no comprehensive document dealing with planning for the institutions, nor a specific procedure or model to guide them in their activities, all universities have prepared some documents for specific activities, generally for internal use, using a given method. Among these documents, planners at universities A and B drew up internal budgeting plan each year, that are written statements specifying their programs and projects and the financial resources allocated for each institution. The amount of financial resources corresponds to the total allocated by the Ministry of Education, including the private resources that represent less than ten percent of the total. In university A, there is a procedure for

distributing appropriations among the several colleges of the university.

Other written documents dealing with planning are: physical site plans (universities A and B), and a written statement of purposes for university C, which specifies some of the goals and objectives of the institution during the university president's term of office. This document contains definitions of policies and guidelines on a theoretical level, and are more of academic than practical value.

Special attention must be paid to university A, and its attempt to develop a three Year Plan. The three Year Plan consisted of a detailed questionnaire addressed to all academic departments in the institutions. In this questionnaire the academic departments make proposals for their new and future programs and projects for a three year period. This document is consolidated at the college level, by the dean of the college after conferring with various departments heads. After this consolidation the document is submitted to the vice president for planning, and discussed among the technical personnel of the planning unit. However, matters do not always work out as scheduled. At the time of preparation of this document there were political and financial crises. The financial resources were sufficient for the basic expenditures of the university for a period of four months. This is why the great majority of departments saw no reason to spend time on a plan of no visible

significance in financial terms, which would only arouse controversy and clashes among them. On the other hand, one of the roles played by the departmental heads that participated in the study, was to send questionnaires out without evaluating them. There was therefore little reason for them to create political crises in their colleges for a document of no consequence. Thus, due to the lack of financial resources and the lack of a means for estimating the needs of the academic units, university A has adopted formula budgeting for distributing funds among its units. The advantage in using this procedure is that the formulas serve to minimize conflicts among the various departments, and accord them equitable treatment.

Planning documents were also examined at the decision-making level. Decision-makers were asked if their universities had written documents dealing with planning over the following years. The majority of them did not know (43%), 35 percent answered yes, and 22 percent answered negatively. Those who answered negatively cited six different reasons for the lack of planning documents. Some attributed this fact to administrative changes, and lack of clearly defined objectives in the institution (27%); others to the lack of financial support for carrying out planning decisions (27%). Some individuals cited lack of planning (18%); other respondents indicated a lack of autonomy of the university, and acceptance of this situation by the central administration (14%); a small number indicated a lack of

competence of the university administrators for failing to have written documents (9%). The priorities of the current university administration which have been more centralized due to changes in the by-laws governing university operations (5%), were also cited.

Despite the nonexistence of planning, all planners recognize the importance of planning among measures taken to tackle some of the current university problems. When asked what had prompted the interest in planning at their universities, all again emphasized the nonexistence of planning documents, while recognizing that planning as an administrative procedure would be helpful to the following reasons:

- 1- It is the only possible approach to the problem of limited resources facing Brazilian higher education today;
- 2- It is imperative for the institution during a time of crises have a clear view of the future, and the financial resources which will be required;
- 3- It is important to emphasize accountability;
- 4- It would assure the proper disposition of material and human resources;
- 5- It would serve as an instrument for decision-making.

The degree of public planning varies among the institutions. However, all universities seem to recognize that if there is to be planning, it should involve the entire academic community. In general, there is a strong

tendency for prejudice against participation by students and administrative staff in the process. In university A, only the deans and some professors of the academic departments participate while some members of the university council participate by virtue of their academic positions and not through their decision-making position. In university B, the budget has been submitted to and discussed by the university council, and faculty and staff associations. In university C, a statement of purpose related to planning was presented in meetings open to the entire university community. However, at all the universities, the planners saw no awareness in the general university population regarding their activities and, consequently, there was little involvement and participation of the community.

In summary, an analysis of the results of this and the previous section, brings to mind certain comments about university administration and planning. In spite of a wide degree of recognition of the need for planning in the universities under consideration, little or no progress has been made; in fact, there is still no comprehensive diagnosis, or a comprehensive plan for dealing with the issue and, consequently, there is no technique or model for guiding the process. In general, the preparation of a plan should be based on clear directives from political authorities. However, a choice, if it is to be valid, must also be founded on a detailed knowledge of needs and resources. Planning, thus, requires several preliminary

studies of various kinds.

The application of managerial principles in institutions of higher education does not mean that university administrators should or could view their institutions strictly in terms of profit or loss. What is implied in this study is that the universities, too, have been affected by crises and by the "managerial revolution" of the last thirty or forty years.

Concepts, Attitudes and Influence on Planning

An attempt has been made to identify concepts, attitudes, influence toward planning. "concepts and attitudes" refer to the feeling, willingness or position of the planner and decision-makers toward planning. Influence is related to the position of several groups and their impact and influence on planning policies.

Concepts and Attitudes Toward Planning. There was a general consensus among the participants in the planning process that good planning and management are the keys to overall university development. However, their wishes are often at variance with what is actually practiced. Each university under consideration is in the process of administrative reorganization; the process, however, has been slow. The first university reform in Brazil was held up 15 years in congress. In university A, the process of statutory reform

has been debated in the university council for almost twelve years. During this period, the top administrative staff, and members of the university council saw almost three turnovers. During this period, it is supposed that, besides the action of the time each different participants had different feeling and concepts as university.

All planners and 80 percent of the decision-makers agreed that planning is the application of a rational and systematic analysis to the process of educational development. A wide variety of justifications for the choice of this definition were presented. They are summarized as follows according to the order of response frequency:

- 1- The educational process has to be analyzed constantly.
Only in this way can we intervene positively in the educational process;
- 2- Planning is the only rational way to face the future;
- 3- Planning effectively allows for the development of future courses of action, and this is the only way to reach the goals of the community;
- 4- It is not possible to develop a process without systematic and rational planning, and of unforeseen consequences;
- 5- Is the answer closest to the reality;
- 6- The administration has to be constantly evaluated in order to minimize the conflicts;
- 7- Educational development is methodological, dynamic, rational, and realistic;

- 8- The process of development requires planning;
- 9- Planning is the only means to the end of quality education in terms of teaching, research, and extension;
- 10- Planning is the exercise of foresight in determining the policy, priorities and costs of an educational system;
- 11- Planning is not the only solution, but it is important to the development of the educational process.

A small percentage of decision-makers expressed the view that planning is more mystical and symbolical than a rational activity based upon concrete organized knowledge (10%). For them, the economic, financial and budgetary problems facing higher education in Brazil hinder the freedom of innovation and making, structural changes. Besides this, the lack of experienced university administrators, and their short terms in office make planning virtually impossible.

Ten percent of the respondents chose their own definitions of planning. Some of them suggested that planning is not merely a technical process. The concept of planning as a rational and systematic analysis is too narrow. Planning, requires an attitude of reflection and criticism as a new concept in education. Others have emphasized planning as a realistic process in such a way that can be applied to the reality.

To clarify further their concept of and attitude toward planning, the respondents were asked what planning is

expected to achieve for their universities. A list of six different reasons was presented according to the Huse's (1979) concepts of the importance for planning. Table 10 contains a list of definitions and the percentages of responses given by the respondents (planners and decision-makers).

Table 10
Reasons for Planning

Reasons	Percentage of Response
Planning serves to assure that organizational objectives are reached or, when necessary, changed.....	74
Planning enables the organization to maintain an effective control.....	50
Planning is rational, productive, and is the only feasible answer.....	50
Planning enables the organization to cope with change.....	49
Planning helps in day-to-day decision-making...	46

According to Huse (1979), the first choice of the respondents "reaching or changing organizational objectives" means that planning helps managers and employees orient themselves by pointing the way for them to achieve organizational and unit objectives. Without planning, activities become ends in themselves rather than means to ends. The second choice "maintaining an effective control process" is that planning and control are closely interrelated. Controls are necessary to ensure that resources are properly used and individuals act in the furtherance of the objectives set for the organization. The third choice is associated with the concept of planning as a rational activity seeking better ways to solve problems. The fourth choice "coping with change" is rooted in the fact that changes are occurring at a faster pace than ever before, and the problems are more complex. Organizations and, in particular, universities, are confronted with innumerable problems and without good planning they will be caught by surprise. Finally the last choice, "helping in day-to-day decision-making" is that administrators are busy people, and they must frequently make quick decisions on the basis of relatively little information. For this reason, they need guidelines for decisions. Otherwise, their decisions may not lead the organization in the planned direction.

In order to examine the attitude of the universities toward planning, planners were asked how receptive their

institutions are to new ideas, new programs, new procedures, new approaches, and how planning gives rise to innovations. Planners perceive their universities along traditional lines and are often reluctant to change. For them, there is a generational conflict. The new generation is more receptive to new ideas, procedures and, consequently, to changes. Certain areas of the university are more conservative and are dominated by the older generation. This conflict has created a good climate for the innovations necessary to the change. The planning unit is called for to create a basis for dialogue and trust, incorporating all university members in the process. For them planning should be participatory, i.e., the ideas and suggestions should come from all members of the university. The president is the main leader of the institutions, and his role should be to coordinate all input and submit it to the decision-making body.

Influence on Planning An attempt was made to assess the influence that each group exerts on the planning policies in each of the universities. Ten different groups were identified in this study, and were presumed to influence planning policies. These groups are: university council, teaching and research council, president and general vice president, planners, academic vice presidents, deans, professors, students, politicians, and governmental agencies.

From the list presented to the participants, the presidents and general vice presidents constitute the most

influential group as in shown in Table 11. On a scale from 1 (none) to 4 (much) this group has a mean rating of 3.81 which shows that they exert a great influence on planning policies. Twelve percent of the participants answered that they did not know how much influence is exercised by this group. Other groups identified with a great degree of influence were the vice presidents for planning (mean rating of 3.53), governmental agencies (3.05), university council (3.03) and teaching and research councils (3.01).

Other groups with a mean of not greater than 3 units were the academic vice presidents (2.82) and deans (2.66). The least influential groups exerting little or no influence were reported to be students (1.97), professors (1.89) and politicians (1.77).

These findings are all consistent with those described in section two, i.e., only those affected by the planning activities have participated in or influenced planning activities. There was little or almost no involvement and participation by the university community in the planning process.

From the review of the literature presented in Chapter II, the basic problem in planning is the lack of the support by the necessary persons within the college or university, and getting them to do their share of the actual work. The success of a plan depends directly on the effectiveness of the president in gaining support, interest and commitment the part of the groups referred to above.

Table 11
Influence on Planning Policies

Groups	Level of Influence				Mean Rating
	None 1	2	3	Much 4	
	(frequency of response)				
Decision-makers (university council).....	5	11	24	23	3.03
Teaching and research coun- cils.....	4	11	28	20	3.01
President and general vice presidents.....	1	1	21	35	3.81
Planners (vice presidents for planning).....	2	7	16	36	3.53
Academic vice presidents...	3	17	28	12	2.82
Deans.....	6	20	28	10	2.66
Professors.....	19	31	13	2	1.97
Students.....	25	24	14	2	1.89
Politicians.....	28	18	5	5	1.77
Governmental agencies.....	5	12	17	25	3.05

The respondents decision-makers, who confirmed the existence of a planning document, were also questioned on how much influence they have exerted in the formulation of

plans. Four of these respondents declined to answer the question. Twenty-nine percent of the respondents claimed to exercise no influence, 29 percent were deans and had worked in the coordination of the financial plans of their colleges, 19 percent assisted in the formulation of financial plans, 10 percent in the preparation of the annual report, 10 percent had little influence, and only 5 percent had a great influence. Those who had exercised on influence in the formulation of the plan were identified as members of the upper levels of administration in the universities. The decision-making body was identified by the respondents of this study as having some influence on the planning activities, but have not been identified as participating in the formulation of the plan.

In summary, this investigation of planner's and decision-maker's concepts of planning shows once more the positive attitude of the participants toward planning. A great majority see planning as a rational and important activity. In spite of these feelings a small, but representative proportion of the respondents, see planning in a realistic manner. They translated their feelings in terms of the reality, due to the fact that none of the institution has concrete plans. They view the problems facing higher education as formidable obstacles to planning. However, all of them, regardless of their concepts, seem to have a positive attitude in terms of expectations of what planning can accomplish.

Obstacles and Problems in Planning

This section was investigated under two questions. In part one, the respondents - planners and decision-makers - were asked to list the most crucial problems currently facing their universities and were then asked to rate them in the order of their importance. In part two, participants were asked to draw from an open-ended list of obstacles to planning, four which they considered the most important.

Problems facing higher education. The question addressed to the vice presidents for planning was: "In your opinion, what problems confront your university today? How do these problems differ from the problems of the past? What problems do you expect will emerge in the university's future? How significant are those problems to the university?"

Ranked in order of importance, planners listed the following problems facing their universities:

- 1- the lack of financial resources
- 2- administrative disorganization
- 3- low salaries
- 4- inadequate planning
- 5- staff inadequacy

Planners tend to have a pessimistic outlook on the problems facing their universities. They see their universities in turmoil with problems that can be solved only through medium or long term, planning, and depend on the redefinition of governmental priorities. Higher

education and, in general, public universities are low among governmental budgeting priorities. In the past, financial problems were less acute. In the future, technological problems will acquire paramount importance. The most important role of the planner is to prepare the universities for the challenges of the future.

Decision-makers tend to hold similar views on the planning in confronting the problems facing their institutions. The major problems, in their perception are related to financial matters as shown in Table 12. Among the problems related to financial matters the following were cited: lack of financial resources (37); lack of equipment and material (6); lack of autonomy to use the financial resources (5); and lack of physical space (3).

Other problems are related to administrative organization in the universities. Fifty four percent of the respondents mentioned problems of inadequate institutional structure (14); lack of input from the community on university priorities and problems (9); administrative disorganization (7); a cumbersome bureaucratic structure (5); and the lack of clearly defined goals (4).

Lack of autonomy (20), excessive centralization and a dependence on funding from the central government (9), the lack of a clear education policy in the central government (5) were the most common responses to the problems related to governmental centralization.

Table 12
Problems Confronting Institutions of
Higher Education in Brazil

Problems Areas	Number of Respondents	Percentage of all Respondents
Finance.....	51	71
Administrative Organization...	39	54
Governmental centralization...	34	47
Personnel.....	32	44
Faculty.....	24	33
Planning process.....	16	22
Others.....	8	11

Problems related to personnel were the fourth most frequently cited problems. Forty-four percent of the respondents chose this as a problem area comprised of the following: staff inadequacy (8); lack of interest on the part of staff and faculty (7); lack of general competence (6); inadequate training of the university administrators (4); incompetence among the top administrators (4); and lack of leadership by the university top administrators (3).

Lack of preparation of the academic personnel (14); and quality of teaching (10) were the faculty problems most often cited.

Finally, problems related to inadequate planning (10),

and lack of coordination among the various areas and departments of the university (6) were the problems cited which are related to planning.

Other problems listed by a few respondents were poor salaries (2); lack of a chain of command (2); disorganization (2); a university structure which is unsuited to the Brazilian reality (1); and poor quality research (1). Because of the small number of respondents, by which they were mentioned these problems were not included in any area specified above.

These findings tend to bear out previous studies on university administration conducted in Brazil and other countries, such as those conducted by Fidelis (1982), Finger (1978), Sunlay (1974), and cited by Eurich (1970) to American universities in the decade of 1970s, which leads to a similar comment made by Fidelis who concluded: . . . "these sets of problems transcend time and geographical boundaries, but it do not imply that local solutions to the problems will necessarily be the same" (p.132).

Obstacles to Planning. This study sought to elicit responses which pinpoint the possible obstacles to planning. Previous studies on planning indicated that several factors, or events have influence on planning. Some of these problems were listed in a list compiled by UNESCO (1970) and others (Lahr 1981, Paiva 1970) of the most common negative influences on educational planning.

- inadequate training of personnel (Paiva, 1979)

- financial problems (Lahr, 1981)
- inadequate statistical data (Paiva, 1979)
- lack of human resources (Paiva, Lahr)
- the lack of continuity in leadership (UNESCO, 1970)
- ineffective educational administration (UNESCO, 1970)
- limited funding (Paiva, 1979; Lahr, 1981; UNESCO, 1970)
- the lack of reliable current data on recent trends and present state of education. (UNESCO, 1970)
- the lack of a common technical language for planning and budget activities (Paiva, 1979).
- inattention to the political dimensions of planning and the inability of planners to allot time for consultation and lobbying for support (Benneviste, 1970).

A list of these problems was compiled and participants-planners and decision-makers-were asked to rate four of them, according to their degree of importance for their universities.

The major concerns presented by planners were the difficulty of involving the academic community in the planning process, lack of financial resources, lack of support from the deans and chairpersons in the consolidation of the planning process, lack of a comprehensive assessment of the governmental agencies, lack of autonomy, lack of financial resources, and lack of tradition. Decision-makers identified a wide variety of obstacles to planning as shown

in Table 13 (listed in decreasing order).

Limited financial resources were identified by the majority of respondents (70%) was rated the most formidable obstacle to planning. The shortage of revenues appropriated for higher education in Brazil, (Table 1) have placed Brazilian universities in the worse crisis in its history. In Latin American countries, according to Paiva (1979), the financial factor has not been a real obstacle to planning (p. 138).

The second most important obstacle to planning is the lack of university autonomy vis-a-vis the federal government (63%). This level of centralization was identified by Montandon (1982) as a structural limitation to the development of the federal institutions of higher education. The nonexistence of a planning document was cited by planners in section II, as the result of excessive orientation of and dependence on the central government.

Table 13
Obstacles to Planning Identified by
Decision-makers

Obstacles	Number of Respondents	Percentage of Responses
- Lack of financial resources.....	50	70
- Lack of autonomy.....	45	63
- Lack of a comprehensive assessment of the country's educational needs.....	39	54
- Lack of participation of chair- persons in the planning process	32	44
- Lack of motivation of the academic community in planning matters..	28	39
- Difficulty of involving teachers in the planning process.....	23	32
- Lack of human resources.....	21	29
- Lack of instruments and a mechanism for efficient planning.....	19	26
- Inadequate training of the person- nel in the planning unit.....	15	21
- Lack of tradition.....	4	6

The third and fourth most important obstacles to planning were related to the participation of the university community in the process: lack of participation of the chairpersons (44%), and lack of motivation of the academic community (39%). The wording of this question did not allow to for identifying the reasons for the low degree of participation by the academic community in the planning process. However, the lack of a clearly defined planning policy and directives, strategies, resources, autonomy, and other factors can explain the low participation level in the academic community. The experience of university A in preparing a Three Year Plan can, in part, explain what happens when a plan has no *raison d'etre*, and no support from key persons. The success of a plan, as pointed out by Vaccaro (1976), depends directly on the effectiveness of the chief executive officer in gaining the support, interest, and commitment on the part of those involved in the process. In addition to this, planning is associated with change "any significative change will provoke resistance. Those who currently benefit from the system will fight the loss of privilege. And since that privilege is accompanied by power, their resistance has meant the failure of many a proposed reform" (McGinn, 1980, p.34).

In summary, the four most important obstacles to planning identified by the participants in this study were some of the main problems facing higher education in Brazil. The nature of the problems is the same. The most revealing

finding of all was that, although these problems have been identified in Brazilian institutions since 1978 (Finger, 1978; Fidelis 1982), no solution has been formulated nor have university administrators made efforts toward solving them. Not too long ago, the phrase "planning for growth," was in vogue. Today planning is more often mentioned in connection with the words "budget cuts," "streamlining," "efficiency," and "retrenchment." The universities in Brazil have grown in size and complexity; however, their form of governance has remained relatively unchanged.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

Purpose

During the past few years, there has been a growing amount of literature concerning the efficiency of university administration. However, Brazilian universities seem not to have benefited from this evolution. Studies dealing with planning and management principles applied to higher education in Brazil have been scant and almost non-existent.

The author, recognizing this deficiency in university administration, proposed this study to provide a preliminary description and analysis of the planning process at three selected federal universities in Brazil. In particular, this research was conducted to: a) describe the present structure for planning of three selected federal universities in Brazil; b) to identify the methodologies and techniques which have been adopted in the elaboration of diagnoses and planning activities; c) to identify concepts, attitudes and the influence had by planners and decision-makers on planning; d) to identify the obstacles and problems encountered by participants in planning in the performance

of their duties; 3) to suggest or recommend planning techniques that might lead to great improvements in Brazilian universities.

Review of Literature

In order to serve as a framework for this study, the literature review was divided into two sections: In Section one the literature on planning and management science applied to higher education is presented including the following topics: concepts of planning, planning and management science concepts applied to higher education, structure for planning, the participants in the planning process, and planning models. Section two, includes educational planning in Brazil including a brief outline of Brazilian higher education system, and the development and organization for educational planning.

Methodology

Three sources of information- questionnaires, interviews, and documents related to planning - were chosen to collect the data needed to carry out this study. The participants in the study were identified as the vice presidents for planning (planners), and university council members (decision-makers). A total of 75 participants (respondents) participated in this study corresponding to 62 percent of the total population.

Because this study was done without a working hypothesis, descriptive statistics and measures of central tendency, were the statistical methods used for much of the

analysis.

Findings and Conclusions

The information presented in Chapter IV, lead to the following findings, and conclusions:

1- Participants in planning were identified as the vice presidents for planning (planners), and university council members (decision-makers). The "typical" participant was a male, with an average age of 44 years, holding the rank of associate professor, and working in "exclusive dedication." In terms of academic degree, a high percentage had master degrees in humanities and social sciences earned from foreign universities.

2- The planners, except in the university A, had no experience in university administration or expertise in planning and public administration. All of them were chosen for their positions owing to personal relationships with the president and experience as professors within the same institution. The great majority of decision-makers had been members of the university council for a period corresponding to the presidents' term or service. Their background as a professional educators rarely include training in administrative techniques and, thus, leaves them ill prepared to deal with the complex governance of the university.

3- A high percentage of decision-makers (28%) felt

unqualified to exercise their decision-making duties. Fostering better relationships with the top administration, and better orientation and communication from the central administration were among the main ways suggested for improved university administration.

4- A wide variety of duties (27) was described by members of the university council in performing their decision-making functions. Among these activities none was related to planning.

5- A great amount of time has been spent by planners on routine administrative tasks, and contacts with external agencies and members of the university community. Planners being burdened with trivial details, devote more time to administrative routines than to planning.

6- The personnel working in the planning unit were selected from among the university administrative staff, and had no previous experience in university administration or expertise in planning, which should be important factors in the selection criteria. In general, the quality and number of these personnel is satisfactory. Many completed short-term courses related to university administration and internships in the Ministry of Education. Almost all of them have learned through on-the-job training.

7- For all their deficiencies, Brazilian university administrators are full of good intentions. In the universities visited, there seemed to be an awareness of the fact that good planning and management are the keys to the

overall university development. In spite of a wide degree of acceptance of the need for planning, little or almost no progress has been made. Its structure, isolation and lack of contact with other more advanced institutions, its unfamiliarity with the traditions of political and administrative autonomy, and its lack of trained administrators and personnel have served to impede the process of modernization.

8- All three universities planners acknowledged having no long-range planning documents of any kind. According to the participants, they receive their overall orientation from the Ministry of Education, and the programs and projects executed by their universities, have to be consistent with the guidelines set by the governmental agencies.

9- Much of what has been done in Brazilian universities seems to be dictated by requirements imposed by external forces, mainly governmental agencies. Many managerial practices have been curative, rather than anticipatory, preventive or creative.

10- The availability of some of the planning documents is variable. In general, the university community is unaware of the ongoing activities in the planning units and, consequently, there is little input from the community in the process.

11- Planning has been defined by the great majority of participants as the application of a rational and systematic

process of educational development. However, a small but representative proportion (20%) expressed the belief that planning is still more mystical and symbolic rather than a rational activity. For them, three factors - financial problems, inexperienced university administrators, and their short-terms in office - limit the freedom to innovate, by making planning virtually impossible. Nevertheless, regardless of their concepts, all of them have positive attitudes in terms of their expectations as to what planning can accomplish.

12- The levels of knowledge of planning and managerial practices seem to be very narrow and limited. The participants in this study were unfamiliar with the planning literature, and were unaware of the planning models and techniques developed in American universities.

13- In spite of the differences in size and legal structure in the universities under consideration, no differences were found in the organization of the universities and the use of planning and management systems.

14- Planners perceive their universities as conservative and reluctant to change. In their view, there is a conflict between generations, and certain areas of the universities tend to be more traditional and dominated by the old generation.

15- Several groups were identified and assumed to influence planning policies. Among these groups, the following were believed to exercise much influence: the

presidents, general vice presidents, vice presidents for planning, governmental agencies, university councils, and teaching and research councils. In spite of their considerable influence on planning, top university administrators and members of the university councils have had little participation in the planning process. Any attempt to make planning a continuous activity, rather than a series of isolated efforts should involve the whole university community, and external agencies in the process. Without broader participation and support on the part of all interested parties - teachers, administrators, students, research workers, political leaders - no plan, however logical, would stand a chance of being implemented.

The planning process is political and is centered around the use of authority. When a financial planning system is first implemented, some members of the university community are invariably disturbed, because the process changes the known political dynamics. To insure that individuals in the constituent units understand who has authority for decision-making, a formal planning system must be used. There are, of course, alternative systems. Because of the nature of educational institutions and the typical involvement of all departments in the process, an opportunity for participatory governance is necessary (Dozier et al., 1980).

16- A wide variety of problems facing higher education, and obstacles to planning were identified by the

respondents. Among these problems the following were reported to be the most important: limited financial resources, lack of autonomy, and lack of participation and motivation among the academic community. Some of these problems could be relieved, if not solved, if the universities had better planning and applied certain managerial principles for increasing its administrative efficiency.

Recommendations

1- Significant efforts in planning and management principles are visible in many universities around the world, but not in Brazil where the situation appears to be unchanged. Since the rapid growth in student enrollment many problems confront higher education, but no solution has yet been formulated by educational administrators.

The task of educational administrators is to implement changes and adapt services in a period of unprecedented change. The experience in Brazilian universities, and the demand for higher education which must be met in the future, should give new impetus to the campaign to examine the ways in which planning can increase educational efficiency among university administrators. As Raymond (1969) stated

"it is necessary to examine not only how planning can help administrators, but how educational administrators itself must change in order to cope with problems and tasks of a size and characters with which

earlier administrative structures, attitudes and procedures were not designed to cope" (p. 11).

2- Higher education in Brazil is no longer accorded top priority by the central government. A large portion of the appropriations for education have already been spent in these post secondary institutions. There is considerable criticism in the Third Sectoral Plan, (1980-1985), which remains in effect today. This plan criticizes the role of the university in meeting the country's needs, and excluded higher education from its priorities. Better accountability, and foresight through planning have become prerequisites for survival.

3- Training programs should be intensified and broadened to include university administrators seeking to develop their capabilities and effectiveness. The Ministry of Education should find the ways and means to support national training programs. Brazilian universities should require their personnel to attend seminars or short courses, and participate in on-going internal studies aimed at improving the structure and management of their universities. Universities should employ consultant firms to develop new operating systems.

4- Decision-making is fundamental to good management. Since members of the university councils play key roles in their universities, it is crucial that members understand and participate in the planning. Member should insists on well documented planning and budgets. Further, members

should examine the backgrounds of candidates for the positions of president, general vice president, and vice president for planning for previous experience in institutional planning, and public administration.

5- Vice presidents for planning are not accorded sufficient "clout". Their authority, official involvement with the university community, and the administrative support for their decision are coordinated through the president's office. They should be given more responsibility written in the by-laws of their universities to support their decisions and actions.

6- University administrators have been overburdened with routine administrative tasks. They must delegate responsibility and authority to subordinate personnel in order to better exercise their planning functions.

7- A major part of this study was devoted to suggesting or recommending planning techniques or models that might be helpful to Brazilian universities. In the review of the literature presented in Chapter II, the most common planning models were presented, and their major implications were discussed.

There are several different planning models for different purposes, some of them more successful than others. Many of the models proposed for use in colleges and universities are deficient with respect to one or more factors (Hopkins and Massy, 1981).

The choice or recommendation of a specific model, as

Hopkins and Massy (1981) stated, requires an understanding of both what is important to the institutions, and what means can be used to achieve the desired ends. A model has to be tailored for a specific situation and for specific purposes. Concern about modeling arises from oversimplification, the indiscriminate use of modeling, and an overemphasis on the quantifiable dimension of a decision situation. Careful attention must therefore be paid to choosing the areas appropriate for analysis and constructing models that are properly tailored to the specific needs of colleges and universities.

8- Additional studies in planning and management should be considered. As a result of some of the findings of this study some of the following questions should be examined in greater detail and depth. Among them are: "What impedes the universities from having a systematic and comprehensive planning, if both planners and decision-makers recognize its importance as an approach to the solution of some of its problems?" "What impedes the use of modern managerial principles, and sophisticated planning techniques, if the use of managerial instruments can produce a better rationalization and utilization of material, human, and financial resources and, consequently, can be powerful tools that permit people to produce better plans or decisions than would otherwise be possible?" "What impedes the universities from hiring competent and expert professionals in management and planning?;" and the last question: "What impedes

Brazilian universities from applying the same managerial principles and techniques as the American universities if the academic model adopted by Brazilian institutions are the same used in American universities in terms of departmental and academic structures, faculty, council and careers?

9- This study should be applied to the situation of other federal universities in order to determine the consistency of findings. Studies in planning and management of public universities should also be encouraged by the research institutions, and governmental agencies of Brazil.

APPENDICES

APPENDIX A
QUESTIONNAIRE

QUESTIONÁRIO

O PROCESSO DE PLANEJAMENTO EM UNIVERSIDADES BRASILEIRAS

Controle: _____

Universidade: _____

Objetivos:

O objetivo geral do estudo, em que se insere este questionário, é analisar, de forma descritiva, o processo de planejamento em três universidades federais no Brasil, tal como ele se configura nas atividades desenvolvidas pelos Pró-Reitores (Diretores) de Planejamento e membros do Conselho Universitário, em cada instituição. Especificamente, o estudo será desenvolvido com vistas aos seguintes propósitos: a) descrever a presente estrutura de planejamento de cada universidade; b) identificar metodologias e técnicas usadas em planejamento; c) identificar atitudes e percepções dos membros do Conselho Universitário e Pró-Reitores (Diretores) de Planejamento com relação a planejamento; d) identificar obstáculos e problemas encontrados no desenvolvimento de suas atividades de planejamento; e) sugerir modelos e técnicas de planejamento.

Informações sobre o questionário:

Solicita-se aos membros do Conselho Universitário que preencham o questionário.

As universidades e os respondentes não serão identificados no trabalho final. Qualquer informação será considerada confidencial. O nome dos respondentes se faz necessário apenas para controle do recebimento dos questionários.

Todas as questões apresentam espaço para resposta. Solicita-se que seja usado o verso da folha para complementar respostas, se necessário.

A cooperação de V.Exa. será grandemente apreciada. Por favor, após preencher o questionário, remeta-o para o endereço abaixo, usando o envelope anexo.

QUESTIONÁRIO

1. Qual é o seu cargo, sexo, idade, nível e regime de trabalho ?
(Marque com "X")

Posição que ocupa atualmente	Sexo/Idade	Nível	Regime/Trabalho
Reitor _____	Masc. _____	Titular _____	Ded.Exclus. _____
Vice-Reitor _____	Fem. _____	Adjunto _____	40 horas _____
Pró-Reitor _____	Idade _____	Assist. _____	20 horas _____
Diretor de órgão administrativo _____		Aux.de _____	Outro _____
Diretor de unidade _____		Ens. _____	
Vice-Diretor de unidade _____			
Representante de unidade _____			
Representante de Professores _____			
Representante dos Servidores Técnicos e Administrativos _____			
Representante dos Estudantes _____			
Representante da Comunidade _____			
Outro (especificar) _____			

2. Quando, onde e em que área obteve seus títulos acadêmicos ?

Nível	Ano	Universidade	Curso
Doutorado _____	_____	_____	_____
Mestrado _____	_____	_____	_____
Graduação _____	_____	_____	_____
Especialização _____	_____	_____	_____
Outro (especificar) _____	_____	_____	_____

3. Quantas vezes já foi membro do Conselho Universitário (incluindo o atual mandato) ?
Nº de vezes _____
Por quanto tempo (em meses) foi (ê) membro do Conselho Universitário ?
Nº de meses _____.
4. Quanto tempo tem ainda de mandato como membro do Conselho Universitário ?
Nº de meses _____
5. Dentre as suas atividades desenvolvidas no Conselho Universitário, poderia você descrever as que lhe parecem mais importantes ? (Apresente-as em ordem de importância.)
- _____
- _____
- _____

6. Como membro do Conselho Universitário, considera deter conhecimento suficiente sobre os objetivos da Universidade, seu funcionamento, as limitações e problemas no desenvolvimento de suas funções administrativas e acadêmicas, seu relacionamento com órgãos do Ministério da Educação ?

_____ Sim
 _____ Não

7. Se respondeu negativamente à questão 6, indique de que forma pensa que poderia obter esse conhecimento.

8. Na sua opinião, que qualificação deve ter o Pró-Reitor (Diretor) de Planejamento de sua Universidade ?

Qualificação Formal		Qualificação Informal
_____ Pós-Doutorado	E/OU	_____ Treinamento em serviço
_____ Doutorado		_____ Seminários
_____ Mestrado		_____ Estágios
_____ Especialização		_____ Experiência em administração universitária
_____ Outro (Especificar)		_____ Outro (Especificar)
_____		_____

9. Sua Universidade tem algum plano global de desenvolvimento para os próximos anos ?

_____ Sim
 _____ Não
 _____ Não sei.

10. Se respondeu afirmativamente à questão 9, que influência pôde exercer na formulação do plano ?

11. Se respondeu negativamente à questão 9, favor citar a (s) razão (ões) da não existência de um plano para sua universidade.

12. Na sua opinião, quais são os problemas mais importantes de sua Universidade ? Apresente-os em ordem de importância.

13. Abaixo são apresentadas algumas concepções de planejamento educacional. Marque com um "X" aquela que lhe parece ser a mais adequada.

_____ Planejamento educacional é a aplicação de análise sistemática e racional, visando ao desenvolvimento do processo educacional.

_____ Planejamento educacional é mais uma mística e um símbolo do que uma atividade racional.

_____ Outra definição (Especificar) _____

14. Justifique a escolha da resposta dada na questão 13.

15. Marque com um "X", na tabela abaixo, a resposta que mais se aproxima do grau de influência que cada um dos grupos indicados exerce na formulação do plano em sua Universidade (Assinale uma resposta para cada grupo).

GRUPO	INFLUÊNCIA				
Marque com um "X" o algarismo que corresponde ao grau de influência.	Nenhuma	Mínima	Média	Máxima	Não sei
Conselho Universitário	0	1	2	3	4
Coordenação de Ensino e Pesquisa	0	1	2	3	4
Reitor e Vice-Reitor	0	1	2	3	4
Pró-Reitor de Planejamento	0	1	2	3	4
Pró-Reitores Acadêmicos	0	1	2	3	4
Diretores de Unidades	0	1	2	3	4
Professores	0	1	2	3	4
Estudantes	0	1	2	3	4
Políticos	0	1	2	3	4
Órgãos do Governo	0	1	2	3	4
Outro (Especificar)	0	1	2	3	4

16. Na sua opinião, quais são as três razões mais importantes para planejar (assinale-as com um "x"):

_____ Planejamento possibilita à Universidade realizar o processo de mudança de maneira eficaz.

_____ Planejamento ajuda a assegurar que os objetivos da Universidade serão alcançados ou mudados quando necessário.

_____ Planejamento ajuda na tomada de decisão diária.

_____ Planejamento capacita a Universidade a manter o adequado controle de sua administração.

_____ Planejamento é racional e a única resposta viável neste tempo de crise e de limitação de recursos.

_____ Outra (Especificar) _____

17. Tem conhecimento de algum documento de avaliação da presente situação de sua Universidade ?

Sim _____

Não _____

18. Se respondeu afirmativamente à questão 17, marque com um "x" a(s) sentença (s), que melhor descreve (m) o propósito do documento :

_____ manter a Universidade informada sobre a sua realidade

_____ enviar informações a agências governamentais

_____ fornecer informações para decisões sobre planejamento

_____ selecionar áreas, programas ou projetos como prioritários

_____ outro (especificar) _____

19. Se respondeu afirmativamente à questão 17, marque com um "x" quem produziu o documento:

☐ Consultores fora da Universidade
☐ Pessoal Técnico pertencente ao órgão de planejamento
☐ Órgão de planejamento em cooperação com outros setores dentro da Universidade
☐ outros órgãos específicos da Universidade
☐ outro (especificar) _____
☐ Não sei.

20. Marque com um "x" as atividades que executa como membro do Conselho Universitário:

☐ Define os objetivos globais da instituição.
☐ Participa ativamente na determinação dos objetivos do planejamento educacional.
☐ Participa na decisão sobre projetos e/ou subprojetos.
☐ Advoga políticas de mudança.
☐ Analisa projetos a serem submetidos a outras agências para obtenção de recursos.
☐ Participa na formulação do orçamento anual.
☐ Outra (especificar) _____

21. Abaixo, estão listados itens que podem ser obstáculos e problemas para o apropriado planejamento de sua Universidade. Indique os quatro que lhe parecem mais importantes, assinalando-os com os números 1 (o mais importante), 2 (o segundo em importância), 3 (o terceiro em importância) e 4 (o quarto em importância).

☐ Inadequado treinamento do pessoal do órgão de planejamento
☐ Falta de avaliação global das necessidades educacionais do país
☐ Falta de autonomia
☐ Falta de recursos financeiros
☐ Falta de instrumentos e mecanismos adequados para a elaboração de planos
☐ Falta de recursos humanos
☐ Pouca participação dos Departamentos Universitários no processo de planejamento
☐ Dificuldade de envolvimento dos professores no processo de planejamento
☐ Falta de motivação dos Diretores de Unidades, Chefes de Departamento e professores em assuntos de planejamento.
☐ Outro (especificar) _____

22. Outros comentários e opiniões relativos ao planejamento em sua Universidade.

APPENDIX B
INTERVIEW GUIDE

GUIA DE ENTREVISTA

- 1 - Qual é o seu cargo, sexo, idade, nível e regime de trabalho ?
(Marque com "X")

Presente posição ocupada	Sexo/Idade	Nível	Regime/Trabalho
Reitor _____	Masc. _____	Titular	Ded. Exclusiva
Vice-Reitor _____	Fem. _____	Adjunto	40 horas
Pró-Reitor _____	Idade _____	Assist.	20 horas
Diretor de Unidade _____			
Vice-Diretor de Unidade _____		Aux. de Ensino	Outro
Representante de Unidade _____	Outro		
Representante de Professores _____			
Representante dos Servidores Técnicos e Administrativos _____			
Representante dos Estudantes _____			
Representante da Comunidade _____			
Outro(Especificar) _____			

- 2 - Quando, onde e em que área, você obteve seus títulos acadêmicos?

Nível	Ano	Universidade	Curso
Doutorado	_____	_____	_____
Mestrado	_____	_____	_____
Graduação	_____	_____	_____
Especialização	_____	_____	_____
Outro(Especificar)	_____	_____	_____
_____	_____	_____	_____

- 3 - Quais são as suas principais responsabilidades em sua presente posição? (Especifique brevemente).
- 4 - Poderia você ordenar as responsabilidades que você mencionou na questão nº 3, de acordo com sua importância?
- 5 - Como você veio a ser Pró-Reitor (Diretor) de Planejamento? (História, processo de escolha, etc.)
- 6 - Qual experiência profissional (educação, experiência universitária, exercício de função administrativa), você pensa que o qualifica para sua função de Pró-Reitor (Diretor) de Planejamento?
- 7 - Você pensa que os Pró-Reitores (Diretores) de Planejamento deveriam ter alguma preparação para desempenhar as funções de planejamento?

- 8 - Se a questão nº 7 é afirmativa, como você pensa que tal preparação ^{2.} deveria ser feita?

Programa Formal		Programa Informal
<input type="checkbox"/> Pós-Doutorado	E/OU	<input type="checkbox"/> Treinamento em serviço
<input type="checkbox"/> Doutorado		<input type="checkbox"/> Curso de Curta Duração
<input type="checkbox"/> Mestrado		<input type="checkbox"/> Seminários
<input type="checkbox"/> Especialização		<input type="checkbox"/> Estágios
<input type="checkbox"/> Outro(Especificar)		<input type="checkbox"/> Outro(Especificar)
<input type="checkbox"/>		

- 9 - Se a questão nº 7 é afirmativa, indique a área ou áreas que tal preparação deveria ser feita?
- 10 - Estime o percentual de seu tempo gasto nas seguintes atividades:
- ☐ Atividades administrativas: por exemplo, relatórios administrativos, trabalhos de rotina, etc.
 - ☐ Atividades técnicas: por exemplo: acompanhamento de estudos, formulação e análise de projetos, preparação de relatórios técnicos, implantação de planos, etc.
 - ☐ Atividades de interação: por exemplo: contatos com outros órgãos, com agências externas, com o público, etc.
 - ☐ Outras atividades (Especificar)
- ☐ 100%
- 11 - Quantas pessoas em seu órgão estão trabalhando em atividades de planejamento?
- 12 - Qual a formação e experiência profissional dessas pessoas? (Títulos, posição, não citar nomes).
- 13 - Quais são os tipos de atividades desenvolvidas por essas pessoas?
- 14 - Existe algum documento em sua universidade, avaliando a presente situação? (Se afirmativo, solicitar cópia).
- 15 - Se a questão nº 14 é afirmativa, qual das sentenças abaixo descrevem melhor o propósito do documento?
- ☐ para manter a universidade informada sobre a realidade;
 - ☐ para enviar informações para agências governamentais;
 - ☐ para fornecer informações para decisões sobre planejamento;
 - ☐ para selecionar áreas, programas ou projetos como prioritários.
 - ☐ Outro (especificar)
-
- 16 - Se a questão nº 14 é afirmativa, quem elaborou o documento?
- ☐ O pessoal técnico pertencente ao órgão de planejamento.
 - ☐ Consultores fora da universidade.
 - ☐ O órgão de planejamento em cooperação com outros setores dentro da universidade.
 - ☐ Outros órgãos específicos da universidade.
 - ☐ Outro (Especificar)
-
- ☐ Não sei.
- 17 - Sua universidade tem algum documento sobre planejamento para os próximos anos?
- 18 - Geralmente quanto tempo sua universidade projeta para o futuro? (5 anos, anualmente, em especial circunstâncias, etc.)

- 3.
- 19 - O plano de sua universidade inclui específicos objetivos, metas , etc. ?
- 20 - O plano de sua universidade inclui estratégias, específico curso de ação, prioridades, etc. ?
- 21 - O plano de sua universidade estima os recursos alocados para o futuro ?
- 22 - Qual é a abrangência do plano de sua universidade ?
- 23 - O planejamento em sua universidade é frequentemente retrospectivo , isto é, planejamento feito para corrigir situações passadas ?
- 24 - O planejamento em sua universidade é frequentemente prospectivo, isto é, planejamento dirigido para criar um futuro desejado ?
- 25 - Existe algum procedimento (modelos, técnicas, etc.) especial na qual sua universidade segue em planejamento ?
- 26 - O que iniciou planejamento em sua universidade (crise, solicitação de entidades governamentais, mera formalidade exigida pelo Estatuto da Universidade, etc.).
- 27 - Na sua opinião, quais são as três razões mais importantes para planejar. (Coloque em ordem de prioridade).
- _____ Planejamento possibilita a Universidade realizar o processo de mudança de maneira eficaz.
- _____ Planejamento ajuda assegurar que os objetivos da Universidade serão alcançados ou mudados quando necessário.
- _____ Planejamento ajuda na tomada de decisão diária.
- _____ Planejamento capacita a Universidade a manter o controle de sua administração adequado.
- _____ Planejamento é racional e a única resposta viável neste tempo de crise e de limitação de recursos.
- _____ Outro (Especificar) _____
-
- 28 - O que você pensa que deveria ser incluído na versão final do seu plano ? (Missão, objetivos, análise da situação, estratégias, estabelecimento de prioridades, etc.).
- 29 - Como o plano em sua universidade é transformado em plano operacional?
- 30 - Marque com um "X" na tabela abaixo a resposta mais próxima que corresponde a influência que cada grupo exerce na formulação do plano em sua universidade. (Marque um para cada grupo).

GRUPO	INFLUÊNCIA				
Marque com "X" o algarismo que corresponde ao grau de importância.					
Conselho Universitário	0	1	2	3	4
Reitor e Vice-Reitor	0	1	2	3	4
Pró-Reitor de Planejamento	0	1	2	3	4
Pró-Reitores Acadêmicos	0	1	2	3	4
Diretores de Unidades	0	1	2	3	4
Professores	0	1	2	3	4
Estudantes	0	1	2	3	4
Políticos	0	1	2	3	4
Órgãos do Governo	0	1	2	3	4
Outro (Especificar)	0	1	2	3	4

- 31 - Marque com um "X" na tabela abaixo as atividades que você executa na⁴ sua universidade.
- ☐ Define os objetivos globais da instituição.
☐ Participa ativamente na determinação dos objetivos do planejamento.
☐ Participa na formulação de projetos e/ou subprojetos.
☐ Coordena a execução do planejamento.
☐ Conclui a elaboração do plano.
☐ Analisa projetos a serem submetidos a outras agências para recursos.
☐ Participa na formulação do orçamento anual.
☐ Outra (Especificar) _____
-
- 32 - Atividades, em geral, diferem na quantidade de tempo que consomem. Ordene as atividades que você marcou na questão nº 31, de acordo com o tempo que consomem. (Marque 1 a atividade que consome mais tempo, 2 a seguinte, e assim por diante).
- 33 - Abaixo são apresentadas algumas concepções sobre planejamento educacional. Marque com um "X" aquela definição que você pensa que é a mais importante.
- ☐ Planejamento educacional é a aplicação de análise sistemática e racional visando o desenvolvimento do processo educacional.
☐ Planejamento educacional é mais uma mística e um símbolo do que uma atividade racional.
☐ Outra definição (favor especificar) _____
-
- 34 - Se você não considerou nenhuma das definições apresentadas na questão nº 33, poderia você indicar sua própria definição ?
- _____
- _____
-
- 35 - Favor justificar a escolha da resposta dada na questão nº 33.
- 36 - De que forma a comunidade universitária participa na elaboração do plano em sua universidade ?
- 37 - Qual é a política de sua universidade com relação a apresentação do plano para sua comunidade ?
- 38 - Como você pensa que planejamento poderia mudar sua universidade no futuro ?
- 39 - Abaixo estão listadas quatro áreas de atividades típicas do planejador universitário:
- 1 - Administrativa. Por exemplo, executar projetos sob a ordem do superior dentro da hierarquia administrativa.
 - 2 - Política. Por exemplo, adaptar a proposta do plano dentro do ambiente político.
 - 3 - Técnico. Por exemplo, determinar os procedimentos ou especificar as 'ferramentas' necessárias para alcançar os objetivos determinados no plano.
 - 4 - Educacional. Por exemplo, especificar a toda a comunidade e ao público interessado, a política, objetivos e os resultados esperados do plano.
- Marque uma ou mais das atividades que você acredita que fazem parte de seus deveres.
- | | |
|--|--|
| <input type="checkbox"/> Administrativa
<input type="checkbox"/> Política | <input type="checkbox"/> Técnica
<input type="checkbox"/> Educacional |
|--|--|

- 5.
- 40 - Ordene as atividades que você marcou na questão nº 39, de acordo com sua importância. (Ordene 1 a mais importante, ordene 2 a próxima em importância e assim por diante).
- 41 - Na sua opinião, quais problemas enfrenta sua universidade hoje ? Como esses problemas diferem do passado ? Quais problemas você espera para o futuro ? Qual é a significância desses problemas para sua universidade ?
- 42 - Muitas universidades incluem diversos grupos com variadas percepções sobre como deveria ser a universidade e como deveria ser dirigida. Como faz o planejamento em sua universidade para controlar as diferenças de opiniões, situações, conflitos, etc. ?
- 43 - Se você tivesse o poder de mudar sua universidade, como seria a universidade que você criaria diferente da universidade hoje ?
- 44 - Quanto receptiva é a sua universidade a novas idéias, novos programas, novos procedimentos, etc. ? Como faz o planejamento para estimular inovações em sua universidade ?
- 45 - Qual o papel do Reitor em planejar o futuro de sua universidade ? Na sua opinião, como o Reitor conduz planejamento em sua universidade ?
- 46 - Qual o papel do pessoal administrativo em planejar o futuro de sua universidade ? Caracterize a administração da universidade. Como você descreveria a qualidade do pessoal administrativo de sua universidade ?
- 47 - Abaixo estão listados itens que podem ser obstáculos e problemas para o apropriado planejamento de sua Universidade. Ordene quatro deles de acordo com a importância para você. (Ordene 1 o mais importante, ordene 2 o próximo em importância e assim por diante).
- ___ inadequado treinamento do pessoal do órgão de planejamento;
 - ___ falta de avaliação global das necessidades educacionais do país;
 - ___ falta de autonomia;
 - ___ falta de recursos financeiros;
 - ___ falta de instrumentos e mecanismos adequados para a elaboração de planos;
 - ___ falta de recursos humanos;
 - ___ pouca participação dos Departamentos Universitários no processo de planejamento;
 - ___ dificuldade de envolvimento dos professores no processo de planejamento;
 - ___ outro (especificar) _____
-
- 48 - Você tem algum comentário adicional que gostaria de formular ?
- 49 - Você gostaria de receber uma cópia do relatório final desse estudo ?

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