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ABSTRACT

The material for a course in college and university administration and management, which utilizes a Planning, Programming, Budgeting and Evaluation System (PPBES) as well as a Management Information System (MIS), is provided. The course permits the student to progress at his/her own pace, and makes use of audiovisual materials, such as tape cassettes, film, transparencies, as well as the traditional lecture and small group discussion method and reading materials. The five units of the course are: Planning; Programming; Budgeting; Evaluation; and Management Information Systems. Forms by which the student evaluates each unit, questionnaires related to course revision and course evaluation, and a post-evaluation self-test are provided. (For related documents, see JC 740 025-027.) (DB)

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AN INNOVATIVE APPROACH OF LEARNING THE PRINCIPLES OF PLANNING, PROGRAMMING, BUDGETING AND EVALUATION SYSTEMS

(An Orientation for Community College Staff to PPBES)

CURRICULUM DEVELOPMENT MODULE

BY

ZDZISLAW P. WESOLOWSKI, M.S.C.

POLK COMMUNITY COLLEGE

WINTER HAVEN, FLORIDA

A PRACTICUM PRESENTED TO NOVA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF EDUCATION

JC 740 024

NOVA UNIVERSITY

ORLANDO CLUSTER

AUGUST 28, 1973

PREFACE

The author undertook the task of combining in one volume material for a course which will give a layman a nontechnical understanding of a new concept of college and university administration and management. This new concept is an innovative technique popularly named, Planning, Programming, Budgeting and Evaluation System (PPBES), and Management Information System (MIS). The author conducted an extensive research into all available literature on this subject. After reviewing many publications, certain portions were adopted for inclusion in this course which would in the author's opinion assist students of this subject to become more knowledgeable.

It is fitting to acknowledge my thanks to the countless authors too many to mention whose material was included in this course. Their contribution in this field will assist in teaching the basic concepts of PPBES. I also want to express my appreciation to my associates in Florida who have contributed their time and efforts to make implementation of PPBES a possibility. My appreciation is expressed to the following individuals who assisted me in my work.

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INFORMATION

TABLE OF CONTENTS

PAGE

1. INTRODUCTION AND STATEMENT OF THE PROBLEM..... 1

2. BACKGROUND AND SIGNIFICANCE OF THE STUDY..... 2

3. BASIC ASSUMPTIONS..... 3

4. STATEMENT OF THE HYPOTHESIS..... 4

5. REVIEW OF LITERATURE AND INSTRUCTIONAL MATERIALS... 4

6. RESULTS OF THE RESEARCH..... 5

7. SUMMARY AND RECOMMENDATIONS..... 6

8. AN ORIENTATION COURSE FOR COMMUNITY COLLEGE STAFF TO THE PRINCIPLES OF PPBES AND MIS..... 8

9. APPENDIX A- TERMINOLOGY..... 98

10. APPENDIX B- PPBES FLORIDA STATUTES..... 105

11. BIBLIOGRAPHY..... 112

INTRODUCTION AND STATEMENT OF THE PROBLEM

Polk Community College as well as the other twenty seven community colleges in the State of Florida is faced with a task of implementing Planning, Programming, Budgeting and Evaluation Systems as required by Florida State Legislation. The problem presented by this legislative requirement is the fact that there are only several individuals on campus familiar with the basic concept of PPBES to successfully implement the system. In order to accomplish the implementation of PPBES, a personnel training program needs to be developed to acquaint all personnel with the fundamental principles of PPBES. The whole college community must become aware of the implications and importance of PPBES on their organizations and determine their own role in the system's implementation.

In addition to the mandate to establish a PPBES, the new legislation also requires a system of collection of data for management decision making at all levels of the educational structure. The Management Information System (MIS) requires a computer based system which is capable of storage and retrieval of data necessary for college decision making. These two systems require a knowledgeable number of personnel at all levels in the college community who will be able to understand the two systems and be able to use their products to improve college administration and instruction. The two systems will provide college decision makers with a tool for long-range planning and rational decision making.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

In 1969 the legislators of the State of Florida passed the Reorganization Act , Florida Statute 229.551, which provides for the establishment of a state-wide educational planning and budgeting system. The statute mandates the establishment of a management information system to be used in support of the long-range planning concept (PPBES). The Division of Community Colleges of the Department of Education has directed all community colleges to take steps in developing a program budget which will be used as a basis for state budget funding requests. Each community college is to develop its own program planning and budget system which will serve their management needs by the academic year 1975-76.

The major significance of the state-wide community college PPBES should result in better communication and allocation of resources at all community colleges because there will be a common ground for communication. A uniform academic and administrative program structure, definition and description of terminology and common data base will increase the possibility of communication and evaluation of programs to determine their effectiveness.

In order to meet the above objectives, the personnel at Polk and other community colleges must become aware about the basic concepts of PPBES and MIS in the shortest period of time so that they will be able to understand their role and make a personal contribution during the implementation phase and after. This study will try to determine the instructional needs to train personnel in

this area and determine what instructional resources are presently available for this purpose. If instructional resources are not available, it is imperative that a training program be developed to train personnel in the area of educational planning and management systems.

BASIC ASSUMPTIONS

The present assumption is that given a clear definition and purpose of PPBES, the average faculty and staff member of the college who has not been previously aware of the system, will be able to acquire a working knowledge of a new concept within a short period of time. It is also assumed that in the area of PPBES and MIS literature there are instructional materials with personalized programs to assist individuals to learn its principles. In the last several years a vast amount of literature has been published on the subject which should be made available to community college personnel so that they may become knowledgeable about PPBES and MIS.

Personalized instructional courses have been developed in many academic areas and the possibility exists that there may be some instructional packages available for professional development of community college staff members in PPBES. Personnel development on all levels in the community college system in the areas of modern management techniques and long range planning is most desirable at this time.

STATEMENT OF THE HYPOTHESIS

The hypothesis of this study is that there are potentially capable individuals on campus in administration and instruction who have the ability to implement PPBES and MIS providing that a careful training program is developed to orientate them to the basic concepts of the system. The second hypothesis of this research project is that there is a considerable amount of literature, audio-visual and personalized instructional courses available to permit community college staff members in developing their professional skills in this area.

REVIEW OF LITERATURE AND INSTRUCTIONAL MATERIALS

To determine the availability of instructional materials in PPBES and MIS, a considerable amount of time was spent reviewing professional journals and catalogs of commercial publishing houses for available materials. Bibliography of books and articles, audio-visual catalogs were also consulted.* Contacts were made with several universities to determine if instructional materials may have been developed for instruction in the area of PPBES and MIS on a graduate or undergraduate level. In addition, personnel officers and specialists in the field were asked to assist in the project by identifying institutions which have developed personnel training programs in PPBES and MIS.

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*FERIC, Florida Educational Resources Information Center, ERIC, National Center for Higher Education Management Systems at WICHE, national Educational Resources Information Center, Abstracts of Instructional Materials, Educational Films, Learning Directory,

RESULTS OF THE RESEARCH

After an investigation of all known sources for a personalized instructional program in the area of PPBES and MIS, the research revealed that not a single instructional program exists in this area.

There is however,a vast amount of literature on the subject (see bibliography) presenting historical, conceptual and practical application models of PPBES and MIS in higher education. Little information can be found about PPBES and MIS utilization in community colleges. The research has failed to reveal any attempt to develop a personalized individual learning program which may be used to teach the principles of PPBES and MIS on an introductory level to non-specialists.

The literature reviewed contained instructional material which had the potential of being included in the development of a new curriculum in this area. The need exists to develop a course which can use the available technical material in a manner which will permit learning of the subjects on a personalized basis and at the individuals time and pace needs. Several audio-visual tools can be developed to offer participants in an orientation course several options of learning. A combination of alternatives in the methods of instruction is necessary because of the individual differences in personnel, educational levels and organizational assignments in the college structure.

SUMMARY AND RECOMMENDATIONS

The investigation of all available sources revealed a lack of instructional material in the area of PPBES and MIS. It is suprising to learn that the importance of the subject to the field of higher education has failed to motivate some organization to develop a learning program for community college personnel in this area.

The Florida legislative mandate requiring the implementation of PPBES and MIS by the academic year 1975-76 may not be realized because of a lack of trained personnel to implement and use these new management techniques. The statewide agency responsible for implementation of this program should consider the possibility of initiating a training program for community college staff. The federal government after reaching a decision to adopt PPBES on a national level in 1965, established implementation seminars in every agency to train personnel. This instructional program permitted administrators in the government at all levels of each organization to become acquainted with the system and develop skills how to use it and apply it to their areas of responsibility.

Polk Community College has a definite need to develop a personnel training program for its staff. The first objective for such a program would be to train all personnel in new management techniques. The most immediate need however is to develop a personalized course which will enable interested individuals to learn the

principles of PPBES and MIS. Based upon the research project the following recommendations are made;

1. Hire a full time Director of Personnel at Polk Community College with a major responsibility for personnel training and development.

2. The Division of Community Colleges should establish a state-wide training program for personnel directly involved with program budgeting and management information systems.

3. Maintain the state-wide training program on a continual basis as a means of upgrading personnel, re-training and orientation of new personnel to the systems approach in administration and instruction.

4. Develop a personalized instruction program especially designed for community college staff.

As a result of the research project, a practicum was undertaken to develop a course in PPBES and MIS. During the research for instructional material, information was gathered and analyzed to develop a personalized instructional course with an objective to assist community college personnel to gain a working knowledge of PPBES and MIS. The major objective of the course is to enable the student to progress at his/her pace of learning. The course makes use of audio-visual materials such as tape cassettes, film, transparencies as well as the traditional lecture and small group discussion method and reading material.

PERSONALIZED INSTRUCTIONAL COURSE, PRINCIPLES OF PLANNING, PROGRAMMING BUDGETING AND EVALUATION SYSTEMS

(An Orientation of Community College Staff to PPBES)

BY

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TABLE OF CONTENTS

PAGE

1. ARTICLE; INTRODUCTION TO PLANNING, PROGRAMMING, BUDGETING AND EVALUATION SYSTEMS..... i

2. SPECIAL NOTES ON LEARNING ACTIVITIES..... 1

3. COURSE RATIONAL..... 3

4. COURSE OBJECTIVES..... 4

5. PRE-EVALUATION QUESTIONNAIRE..... 7

6. UNIT I- PLANNING..... 9

7. UNIT II- PROGRAMMING..... 41

8. UNIT III- BUDGETING..... 60

9. UNIT IV- EVALUATION..... 78

10. UNIT V- MANAGEMENT INFORMATION SYSTEMS..... 86

11. COURSE REVISION..... 96

12. COURSE EVALUATION..... 97

Introduction to PPBES

College and university administrators have been noted for responding to funding plans rather than planning the needs of their institutions. The rapid growth during the last decade has made comprehensive and integrated planning difficult. The major objective was how to meet the educational needs of an increasing number of students. Funding these educational programs in the past was not a major concern of the academic manager. However, in the last few years the availability of state, federal and private funds has been greatly reduced presenting college administrators with a problem of demonstrating to the public the effectiveness and efficiency of their organizations. In response to a new wave for accountability in higher education, a need arises to establish outcome orientated management planning systems.

The demand for accountability has pressed college administrators to seek methods which would permit them to institute long-range planning and allocate the resources into areas which will yield the best results for the institution. In response to this demand, colleges have adopted "business techniques" concepts of planning and management systems in the form of PPBES, Planning, Programming, Budgeting and Evaluation. Because demand for educational cost information

has increased, a program budget system indicates what resources are to be allocated in order to achieve predetermined goals.

Background of PPBES

In the early 1960's Robert S. McNamara as Secretary of the Department of Defense was under pressure to justify the cost of the defense budget on a cost-output basis. McNamara's other concern was long range planning. The Rand Corporation was given a contract to come up with a new type of management tool which would combine in some logical order the whole governmental bureaucracy and transform it into a system of management control and establish a means for accountability. To obtain the requested funds and justify its programs, the Air Force Systems Command in co-operation with the Rand Corporation, established this technique for its support systems cost analysis. The cost-benefit analysis system was able to prove and justify program needs resulting in favorable legislative budgetary allocation. The cost-benefit analysis system as it was called by the Air Force was adopted by the entire Department of Defense by 1964.

The federal government expressed an interest in the system and viewed it as a tool to permit government executives to find the most effective and least costly alternatives to achieve their objectives. After its initial analysis and evaluation by the Department of Defense, President Lyndon Johnson made the implementation of PPBES manditory throughout the whole governmental structure and mandated its adoption. With the support of the President, PPBES was adopted at all levels of the federal government and since that time some form of PPBES has been implemented by a majority of government agencies. At the news conference of August 25th, 1965 President Johnson announced the introduction of the system to the country his speech of introduction

of PPBS in the federal system stating the goals to be that:

"Under this new system each Cabinet and agency head will set-up a very special staff of experts who, using the most modern methods of program analysis will define the goals of their department for the coming year. And once the goals are established this system will permit us to find the most effective and the least costly alternative to achieving American goals. This program is designed to achieve three major objectives: it will help us find new ways to do jobs faster, to do jobs better, and to do jobs less expensively. It will insure a much sounder judgment through more accurate information, pinpointing those things that we ought to do less. It will make our decision making process as up-to-date, I think as our space programs."

Since the time PPBS was adopted by the federal government, the concept has been implemented by state and local governments, profit and non-profit organizations and state educational institutions in New York, California, Florida, New Jersey, Illinois and Pennsylvania.

The philosophy of the systems approach to management planning and budgeting whether they are called PPBES, Systems Analysis, Operations Research, Management Information, Cost-Benefit Analysis, Simulation Models, Cost Estimation Models, etc., have a common objective, the improvement of the decision making process through the application of critical analysis and the scientific method.

Fundamental Principles of PPBS

One may ask what makes PPBS applicable to governmental,

industrial and educational institutions. The universality of the system is based upon its goal to make rational decisions about allocating resources. In other words PPBS is a methodology for improving decisions by allocation of scarce resources to attain maximum institutional benefits. The concept of efficient use of resources is of primary importance in a PPBS because it will result in the highest benefit from resources allocated in the institution. The traditional line item budget does not divide cost among functions, but rather for each purpose and for no long-range planning of program expenditures. A program budget requires clear stated objectives to accomplish prescribed goals.

A systems approach to educational administration can be defined as a way of thinking about the integration of many facets of decision making. The system approach consists of three interrelated concepts: 1) input, the resources available to reach a goal, 2) process, the composition of inputs, and 3) output, the product or outcome desired. The systems approach of PPBS has a potential to integrate the process of planning, programming and budgeting. The program budget permits the development and analysis of alternatives to achieve stated objectives with and multi-year planning.

There are many definitions of PPBS. One which describes the

system best is that it is designed for long-range planning and budgeting, and establishes institutional programs as the central factor in budgeting, rather than the organizational unit, as in the traditional line item budget system. PPBS also attempts to establish and clarify relationships between goals and objectives and evaluate results of programs and the activities obtained from these goals. The system provides for an analysis of economic impact of proposed programs expressed in costs to the institution. PPBS contributes to the decision making process by providing analysis of alternative programs in terms of anticipated costs and expected benefits. Finally it provides for an evaluation of programs to determine if goals and objectives have been realized. By cutting across conventional departmental lines, program can be considered in terms of cost effectiveness and cost benefit relationship. Therefore, a program budget can be measured by its effectiveness to the extent to which the program has accomplished its objectives and the value derived from such a program. By establishing a relationship between outputs and inputs on the program level, it is possible to determine a productivity ratio. In education a measure of productivity may be the number of students completing a course or graduating from the institution. Cleveland and King define PPBS as "a package of interdependent activities oriented toward a common objective. Thus in PPBS, planning is done in terms of input-oriented resource requirements." [1]

1. David I. Cleland and William R. King, "Project Management in School Administration", Educational Technology, February 1972, p. 72.

ACCOUNTABILITY FOR WHAT AND FOR WHOM

In order to comprehend accurately the need for accountability in higher education a few statistics must be presented for your consideration. Over eight million customers pursue a commodity which is called the college degree on a full-time basis. An additional five million mature individuals participate in continuing educational studies on a part time basis. To justify academic programs and services, state legislatures have mandated accountability for higher education so that they may have some degree of control as how and for what the funds will be spent. The responsibility to the taxpayer and society for the administration of higher educational institutions is enormous. Educators are responsible for accountability of funds, such responsibility can not be left to chance and justification of expenditures involved in education is now required. In the last twenty years the greatest phenomenon in higher education has taken place since the establishment of Harvard University. The phenomenon is the community college. In California and New York over sixty percent of all students began their college education via the community college. Beacuse of such a high degree of responsibility given to educators in these community colleges, legislators have mendated the implementation of PPBES.

In our state, three years ago Florida legislators determined that a systamatic means must be established to coordinate the functions of the twent eight community colleges to meet their objectives as service organizations in the communities in which they exist. Polk Community College has already established a college-wide committee to implement PPBES with a computer based management information system.

The college administrator of the 1950's and early 60's had different types of problems than his present day counterpart. Money was flowing into higher education from a variety of sources. Few people were asking hard questions about how funds were being used and what specific outputs were being produced. Higher education was assumed to be a fundamentally sound investment, and few expenditures of public and private funds were thought to reap as high a return for the general society as the educational investment. Operating in such an environment, educational managers concentrated their planning and budgeting efforts on defining the amounts of resources needed as inputs to the various organizational units that comprise colleges and universities. Little effort was given to answering the question, "Needed for what?"

When we observe the college administrator in the 1970's, we see that he is under more pressures than his counterpart in the 1960's. He is being encouraged on many sides to implement planning and management systems in order to gain an improved understanding of how his institution actually operates and produces outputs. He is told that the new kinds of information derived from such a system can help him more effectively use his limited resources as well as satisfy the increasing demands for program cost accounting and budgeting information. He is inclined to believe that planning and management systems will help.

Planning and budgeting based on inputs have been the traditional approach. The traditional line-item budget defines the amount of resources required by each of the organizational units of an institution. A traditional line-item budget does not relate dollar inputs to outputs.

Now, many projects are competing for public and private dollars. A question commonly posed is, are the products of higher education worth the cost? The public is wondering whether it is better to build low-cost housing or reduce pollution, than to produce more degrees.Educational administrators must address themselves to these questions. They are being asked to justify the cost of educational outputs, and this demand is fostering an emerging approach to planning, budgeting and accountability In this new approach management must establish its output goals, formulate programs intended to produce those outputs, and finally conduct analyses to define the quantity and mix of resources that must be input to each organizational unit to ensure each program's success. Thus, academic planners are increasingly aware of the fact that resources flow into instructional departments only because departments contribute to various degree programs. Currently, many funding agencies are requesting budget formats that link resource requests directly to programs that produce outputs.

To those who are not familiar with this new management technique, a definition has to be made of the terms used in this article. This management technique called PPBES has an organizational unifying effect because it analyses basic organizational and functional concepts and transfers them into an on-going process. This management technique can be made workable in public as well as private organizations. The basic terminology is as follows:

1. Planning--The selection or identification of overall long-range objectives of the college and the systamatic analysis of various courses of action in terms of relative costs and benefits.

These benefits need not be quantitatively measured, but may in fact be measured by value judgment.

2. Programming--Selecting the specific courses of action to be followed in order to reach the objectives.
3. Budgeting--Translating planning and programming decisions into specific financial plans, both current and future.
4. Evaluation--Analyzing the output to determine if the objectives have been reached as planned.

An interesting point to ponder is the fact that the main innovation of PPBES is that the program budgeting process is orientated toward planning rather than toward management. The major characteristics of PPBES are:

1. Priority setting among goals.
2. Analysis of thier contribution to the general aims of the organization.
3. Development of plans.
4. Measurement of goals achievement and resource requirements.
5. Selection of attainable goals.
6. Resource allocation.
7. Monitoring of progress.
8. Evaluation of results.

With the adoption of PPBES as a technique for planning, budgeting and evaluation decisions are influenced by specific objectives and the cost-benefit analysis of each alternative. PPBES aims to assist management in deciding among alternative ways of allocating resources to attain institutional objectives. In essence program budgeting involves the use of budgetary techniques that facilitate explicit consideration of the pursuit of policy objectives in terms of their economic costs, both at the present time and in the future. At Polk we will be planning for five years in the future.

PPBS encompasses a number of previously developed approaches and techniques (systems studies, long-range planning, formal decision analysis) and combines them into a single comprehensive system. The early roots of PPBS can be traced to Keynesian economics and more recently to cost-benefit and system analysis.

> Budgeting is the process by which objectives, resources and the interrelations among them are taken into account to achieve a coherent and comprehensive program of action.

Planning requires a statement of institutional or program objectives and the development and analysis of alternatives. Programming requires understanding of these courses of action in order to provide specific time schedules, coordination with other programs, and identification of resource requirements. Hence, the basic concept of program budgeting is to focus on output or objectives and choose the combination of input resources that best produces or accomplishes that output.

At the same time, institutional objectives are being challanged by the faculty, public, and students, while institutional effectiveness is being questioned by government agencies, foundations, and public donors. Hence, the urgent necessity of developing some form of PPBS. Perhaps the greatest impact of the PPBS technique, however, is not in the area of solving financial problems, but in the area of problem formulation.

Overall the System is designed to:

1. Make available to top management more concrete and specific data relevant to broad decisions;
2. Spell out more concretely the objectives of programs;
3. Analyze systematically and present for review and decision possible alternative objectives and alternative programs to meet those objectives;

4. Evaluate thoroughly and compare the benefits and costs of program;

5. Produce total, rather than partial, cost estimates of programs;

6. Present on a multi-year basis the prospective costs and accomplishments of programs;

7. Review objectives and conduct program analyses on a continuing, year-round basis, instead of on a crowded schedule to meet budget deadlines.

Basic Concepts and Design

A. A PPB System is based on three concepts:

1. An Analytic capability which carries out continuing in-depth analyses, by permanent specialized staff, of the government's objectives and its various programs to meet these objectives.

2. A Multi-Year Planning and Programming process which incorporates and uses an information system to present data in meaningful categories in relation to necessary major decisions.

3. A Budgeting process which can take program decisions, translate them into an implementing financial plan in a budget context, and present the appropriate program and financial data for executive and legislative action.

B. "Tools of the System are:

1. The Program Structure. An early and essential step is the determination of a series of output-oriented categories which, together, cover the total college objective. These will serve as a basic framework for the planning, programming, and budgetary processes (including work on program analysis, reporting and evaluation of accomplishments) and for relating these processes to each other.

2. The Multi-Year Program and Financial Plan. A principal product of the System will be a multi-year program and financial plan (systematically updated) which will set forth, on the basis of the program structure, the activities and operations designed to reach program objectives in stated time periods.

3. Program Analysis. Program analysis, prepared annually for major program categories, will summarize the recommended multi-year program and present an evaluation on the basis of the needs to be met in future years and an appraisal of the adequacy and effectiveness of the previously approved plan for the category. This will identify the college objective, costs, benefits, and major uncertainties of the proposed program and its principal alternatives.

4. Management By Objectives, a tool to assist in the development of personnel. The concept involves determination of individual objectives and contributions, teamwork, areas of activity and responsibility.

Advantages of PPBS as a Comprehensive Policy Decision Making Tool

1. Adaptive to a wide range of organizational structures, climates and management behaviors in both private and public sectors.

2. Emphasizes the need for organizations to specify their purposes, set priorities among these purposes, establish policies toward the achievement of specified purposes and insure that available inputs are used efficiently and effectively in achieving them.

3. Requires recognition of the extent to which current decisions commit organizations to future expenditures.

4. Prompts the use of systematic measurement techniques which can be used to appraise the probable consequences (cost and values) of alternative programs and provide complete, accurate, relevant and timely information for policy decision making. Such techniques can be used to evaluate the probable positive and negative impacts of such consequences on existing or potential programs and related policy decisions.

5. PPBS was designed originally as a comprehensive tool for public policy decision making. As a comprehensive tool, it provides a variety of systamatic methods-means for communicating, negotiating and implementing policy changes.

6. Provides system analysis processes which can be used to assess needs for public services, find significant problems, define relevant missions, search for promising alternatives, develop problem resolution plans and strategies and develop procedures for the effective and efficient management of planned change.

7. Can be used to establish significant relations between valued targets, long-range goals, intermediate-range and short-range objectives, outputs, plans, strategies, procedures and available inputs and the effect of past decisions on future imput availability.

8. Provides an adaptive program framework which facilitates the use of network-based management procedures that can be employed to determine time, cost, value and technical requirements in achievement and to develop corresponding output and performance measures for each requirement.

9. Requires that organizations develop and apply relevant scientific and technological knowledge in a meaningful way to major program issues as they arrise.

10. PPBS is designed to improve public policy decision-making processes so that questions of comparative costs, values, inputs, outputs, effectiveness and efficiency are routinely raised and considered.

Why is it better than the traditional concept.

1. Program review was concentrated within too short a period;
2. Objectives of college programs and activities were not specified with enough clarity and concreteness;
3. Accomplishments were not always specified concretely;
4. Alternatives were insufficiently presented for administrative consideration;
5. Future year costs of present decisions were not provided; and
6. Formalized planning and systems analysis had too little effect on budget decisions.

What will it do in the future.

1. Each college can make available to top management more concrete and specific data relevant to broad decisions;
2. It can spell out more explicitly the objectives of college programs;
3. It can analyze systematically and offer for administrative review and decision, possible alternative objectives and alternate programs to meet these objectives;
4. Each college can evaluate completely and compare the costs and benefits of various programs;
5. It can provide total rather than partial cost estimates of programs;
6. It can present on a multiyear basis the prospective costs and accomplishments of programs; and
7. Each college will be able to review and revise objectives and conduct program analysis on a continuing, year-round basis instead of on a crisis schedule to meet budget deadlines.

Experience to date at some colleges and universities.

1. Resources were allocated through the use of the concept of major objectives;
2. Annual budgeting was integrated with long-range planning on a continuing basis;
3. Systems simulation and other operations research techniques were applied to complex strategy questions;
4. Planning and program analysis were based on a logical, systematic sequence of analytical steps;
5. Task-sequence network diagrams were used in the programming and administration of complex development projects; and
6. Decision making centers were designed for analyzing and reviewing college plans.

Goals of Planning, Programming and Budgeting consist of the following:

1. The specification of college-wide objectives.
2. The measurement of total systems cost.
3. The multi-year academic and administrative program planning.
4. The evaluation of alternative program designs.
5. The integration of policy and program decisions with the budgeting process.
6. The evaluation of program outputs as it relates to the objectives.

Any PPB System has three basic concepts:

1. An analytic capability which carries out continuing in depth analysis of the college's objectives and its various programs to meet these objectives.
2. A multi-year planning and programming process which incorporates and uses a computer based management information system to present data in meaningful form for management decision making.
3. A budgeting process which can take program decisions and translate them into a financial plan in a budget form presenting financial data for management decision making.

Many administrators and faculty members question the rational for implementing PPBS and desire to know why is PPBS better

than the traditional line-item budget. There are several factors which appear to give PPBS an edge over the traditional line-item budget process:

1. Program reviews are concentrated within a short period of time.
2. Objectives of the college's programs and activities are not specified with clear and concise statements.
3. Accomplishments are not specified concretely.
4. Alternatives are not sufficiently presented for management decisions.
5. Future cost analysis of present decisions are provided for.

From the humanistic point of view, PPBS enables the institution to establish a participatory management system because it requires the input of decisions from the lowest level in the organizational structure. Lessinger points out that accountability in higher education can be attained in a humanistic manner utilizing PPBS and MBO as tools of management. By combining PPBS and MBO, accountability can be achieved not only in college administration, but also in the classroom.

With this system the ideal situation may arise because a possibility exists of merging technology (computers) with a humanistic system of decision making. A cybernetic situation

may eventually result in combining the technological accuracy and speed of the computer by proving factual data for human decision making. An accountability model with humanistic framework is viewed by Lessinger in the instructional area as a system "seen as a collection of people, methods, and materials operating in time and space to achieve variable levels of learning." He points out three factors dealing with instructional system components of accountability:[2]

1. "The system is designed to accomplish objectives. The definition and derivation of objectives is a very critical aspect of fulfilling the demand for accountability. The derivation of objectives for documented personal need is an important tie between accountability and humanism.

2. There are several functions which must be carried out. these can be described as training, educative, and celebrative functions.

3. It is not necessary to stipulate a given or set order in which the system must work. With results as targets, the process may vary in substantial way."

From the experience of many colleges and other institutions implementing PPBS, it is apparent that this tool of management can be used to attain some degree of human accountability whether the system be used in education, government or business. By permitting participation in management decision making especially by the lowest level of the organization, morale will increase because members of such an institution will be able to make a personal contribution to the attainment of overall institutional objectives.

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2. Leon M. Lessinger,"Toward a Humanistic Accountability", Impact, Volume 2, Number 3, July 1973, p.6.

A New Approch to Planning and Budgeting in the State of Florida

As a result of the State of Florida Reorganization Act of 1968, a number of changes took place which affected the broad area of educational administration. A Planning Division was set-up under the Department of Administration to develop and coordinate the activities involved in educational planning and budgeting on a state-wide basis. A Florida statute provides that the Commissioner of Education prepare a plan for effecting constructive educational changes and that the planning capability of the Department of Education be exanded. In addition, the statute mandates the establishment of a management information system to assist the Commissioner in providing educational information to the State Board of Education and the Legislature, and to utilize all appropriate modern management tools for short and long-range planning.

Toward this end, broad goals for education in Florida are being developed by the Department of Education on all levels. It is the responsibility of that department to ensure that the specific objectives of program management are consistent with the prescribed goals. Dr. Lee G. Henderson., Director of the Division of Coomunity Colleges stated the following item in a memo to the community college presidents:

> "So that there is no question that we will be legally bound to move toward a program-planning-budgeting system, the tollowing references and interpretations are provided for your information": Chapter 20.05 (2), Florida Statutes,1969 requires that heads of departments"compile annually a comprehensive program bufget covering such period as may be required reflecting all programs and fiscal matters related to the operation of his department and each program, sub-program and activity therein and such other matters as may be required by law."

PPBS and Its Applicability to the Florida State Community College System

The Florida Legislature in 1969 passed a Reorganization Act resulting in a major impact on the future management of community colleges. Florida Statute 229.551 provides that the Department of Education and all state agencies adopt a system of long-range planning and programming. A six-year plan is to be used and updated and evaluated annually. PPBS was selected as a tool for implementing long-range planning in Florida because it places an emphasis on all educational functions and activities, sharing common objectives unified by program areas. The program categories can be combined under the same functions with common objectives dedicated to the achievement of defined goals regardless of organizational structures or departmental relationships. The Florida concept of PPB consists of a system which needs are identified, objectives are determined, priorities are established, and resources are utilized to achieve a coherent, comprehensive, and unified plan of action for all levels in higher education. The system is envisioned as a means to achieve objectives, analyze alternatives, allocate resources over a specified period of time and compare costs and effectiveness of all college programs.

It was realized by the state legislators that the traditional

Approach to planning and budgeting did not provide for accountability to satisfy public demands for justification of expenditures in higher education. The present plans are to have PPBS implemented for the 1975-76 academic year. When the system is fully implemented, it will provide the twenty-eight community colleges with a common approach of preparing their program budget and comparing program costs. The Florida program budget model will reflect direct costs from all disciplines and academic support areas directed toward the student semester credit hour and contact hour as outputs of each program.

To comply with the state mandate, the Division of Community Colleges in the Department of Education has developed a Manual for Planning, Programming, and Budgeting System for Florida's Community Colleges and appointed Dr. William Odom to direct the state-wide community college implementation of the system.

In response to that mandate three community colleges, namely, Florida Junior College at Jacksonville, Tallahassee Community College and Miami-Dade Junior College were selected as pilot centers and began to make an effort to implement PPBS. Their present progress towards meeting the 1975-76 deadline varies and depends upon the resources allocated towards this purpose. The commitment to implement PPBS on each campus also varies in the number of people involved with implementation. One campus has a number of individuals with full-time responsibilities for PPBS implementation and others limited to a part-time effort

or none at all.

The responsibility of the state-wide implementation of PPBS for the community colleges rests with the Division of Community Colleges. The plan for implementation envisions the Division as a coordinating agency. This role will include the provision for special expertise for the colleges, which the colleges individually can not afford. The Division staff members will also function as consultants to the colleges in PPBS implementation. The Division will serve as a liaison with other state agencies and the legislature on behalf of the community colleges, especially concerning funding, state laws and regulations and interpretation of state-wide educational objectives.

A partnership between the Division of Community Colleges and twenty-eight campuses is envisioned to implement PPBS in the following manner:

A. Each College will develop a comprehensive short and long-range plan which shows how it intends to carry out its educational and support programs.

B. The plan will include estimates of the resources needed by the college.

C. The plan will include alternative courses of action assuming the occurrence of certain conditions; shortages of funds and/or a decrease in demand for college services.

D. The Plan will include explicit directions for evaluating the acheivement of objectives.

E. A summary of the plan will be submitted to the Division of Community Colleges.

F. The twenty-eight college plans will be used to develop a comprehensive long-range plan for the system of colleges. They will also be used as the basis for requesting state support and allocating funds to the colleges.

THE FUTURE ROLE OF PPBS IN THE FLORIDA COMMUNITY COLLEGE SYSTEM

Planning, Programming, Budgeting as a system will play a very important role in allocating resources at all community colleges, but not by 1975 as presently planned. It may be more realistic to predict that a totally implemented system may be in existance by 1980. There are several reasons for this pessimistic projection. One major factor is that at the present time not enough effort and commitment is being applied at each community college to meet the planned deadline for implementation. Relatively small number of community colleges will be able to allocate enough time, funds and personnel to accomplish this undertaking. The other factor is that there are not enough fully trained staff members on each campus who are capable to play a leading role in motivating student, faculty and administration as well as the local community to accomplish this task.

The goal for the implementation of PPBS for the 1975-76 academic year is a noble one, however only a token number of colleges will meet this deadline. At least half of the colleges lack a good data base to provide factual information for long-range planning. PPBS requires that a good management information system be available for this purpose. Very few community colleges have a computer based management information system capable of supplying program costs based upon PPBS data element requirements. Those institutions which have developed some applications on the computer will have to revise their programs to meet PPBS model.

Experts in the field of PPBS point out that there are two ways of implementing a PPB System. One plan takes on evolutionary approach, the other a turn-key approach in which it requires an immediate change in organizations and procedures. The approach selected by the Division of Community Colleges is the evolutionary one. The evolutionary approach is a soft-sell type which requires the parallel use of the present budgeting system along with the program budget concept for a period of years until PPBS is phased in completely.

All community colleges are now aware that they must undertake the implementation of PPBS on their campuses, however a mandate has been issued by the Department of Education or the Division of Community Colleges directing each campus president to allocate resources and start implementing the system. During the

last year a manual for implementation has been developed, the manual field tested, and regional as well as state-wide implementation seminars conducted by Dr. William Odom in his monumental task. However, no word has officially reached each campus ordering PPBS's implementation. As a result many campus personnel are not at all concerned with the importance of the system and its potential as a tool for better management and long-range planning. Several knowledgeable individuals express an opinion that valuable time is being wasted because of the non-directiveness of the Department of Education and that the 1975 deadline may never be met because of this fact. Several enlightened college administrators have taken the hint that PPBS will be eventually mandatory for each community college in Florida and have started to orientate all college personnel and prepare for implementation, but these are in the minority.

Recently a state-wide meeting of all PPBS coordinators was held to determine what progress has been made to implement the system on each campus. Participants expressed a wide range of opinions regarding their progress and their role in implementing PPBS on each campus. The predominant factor was a general agreement that they were not making enough progress. Those participants that have made some headway experience difficulty and expressed the following concerns:

1. Resources were not available, particularly people to implement the planning system.

2. Lack of commitment from top college administrators to develop and implement the system.

3. Lack of adequate time to develop a good planning system.

4. Lack of understanding of what the planning system should accomplish for the college, how it will work and who would be involved in it and how.

5. Computer and personnel capability may not be adequate.

6. Good systems planning is not taking place at the colleges.

7. Lack of understanding of the potential value of a formal planning process. There seems to be no apparent benefits in implementing a formal programming and budgeting system.

8. The feeling that the PPB System is just another State required report which colleges must complete.

9. Fear of increased visibility of college operations and the fear of misuse of information at the State level.

10. Lack of commitment to the system by Division administrators.

11. Lack of expertise available at some colleges.

12. Lack of compatability between the state-wide community college program classification structure and the various organizational structures at twenty-eight colleges.

13. There are 28 different policies, procedures, programs, personalities, communities and politics. How can they all be integrated in one system and be measured with the same evaluative technique.

14. Fear that the planning system will be developed by middle management personnel and not used at all by top management in their decision making role.

From the above concerns it seems that implementation of PPBS in its pure philosophical conceptual framework to attain some degree of accountability is a longway off. Those individuals who are responsible on a daily basis for the systems implementation are facing an enormous task.

Conclusion

The Planning, Programming, Budgeting and Evaluation System holds a great promise for the community colleges in Florida. In order to comply to the mandate established by the Legislature, educators have an opportunity to conduct long-range planning and determine the effectiveness and efficiency of their administration and instruction. In order that the objective be met, a clear two-way communication system must exist. The Department of Education must be more definite about what it wants each campus to accomplish by providing specific goals and objectives for the community colleges to follow. There are many academic administrators in the Florida community college system who are very anxious to begin this task.

In connection with the most immediate problem, there are several recommendations which can be made at the present time namely:

1. An immediate directive be issued by the Department of Education, Division of Community Colleges to all presidents directing them to implement PPBS by 1975."
2. Each campus must allocate enough funds and personnel to facilitate the implementation of the system.
3. Each campus must begin training its personnel in PPBS techniques and its philosophy.
4. A more coordinated effort must be made between all community colleges to undertake sharing of experiences in implementation, computer programs and data bases.
5. Each president must make a personal commitment to the implementation of the system and lead his college in its development.

SPECIAL NOTES ON LEARNING ACTIVITIES

Each personalized unit has several alternative methods of instruction which will assist the participant in meeting the learning objectives of this course. Methods of instruction are as follows:

1. Read the appropriate chapter from the following books:
   a. Design Criteria for a Planning, Programming, and Budgeting System for Florida's Community Colleges.
   b. Procedures Manual, Planning, Programming, and Budgeting System, May 1973, PPBE project, Division of Community Colleges, Department of Education, Tallahassee, Florida.
   c. Sabine, Creta D., Accountability: Systems Planning in Education, ETC Publications, Homewood, Illinois, 1973.
   d. Lessinger, Leon M., "Toward a Humanistic Accountability," IMPACT, July 1973, Volume 2, Number 3, pages 4-11.
   e. Haggart, Sue A., Program Budgeting for School District Planning, Educational Technology Publications, Englewood Cliffs, New Jersey, 1972.
   f. Hussain, Khateeb M., Development of Information Systems for Education, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1973.
2. Attend class lectures, discussions on PPBES in community colleges. Review transparencies which are included in each unit.

3. Audio-Tapes. Five cassette tapes are available directly related to the units. The tapes include lectures by:
   a. Dr. Norman Stevens, St. Petersburg Community College
   b. Dr. William Odom, Director PPBES Project, Division of Community Colleges, Tallahassee, Florida
   c. Planning, Programming, Budgeting and Evaluation Systems, WICHE/NCHEMS
   d. PPBES Workshop, University of Michigan.

4. Film. A 30 minute film is also available in the Media Center dealing with WICHE/NCHEMS Systems Management Approach to college and university administration.

5. Participants are encouraged to take part in activities to help them accomplish the objectives of the course. Small group discussions, additional reading from selected bibliography, interaction with other participants is also recommended.

6. BECAUSE OF THE NATURE OF THE COURSE AND THE TARGET GROUP, THE INSTRUCTOR WILL PERMIT THE STUDENT TO PROGRESS AT HIS/HER OWN PACE. INDIVIDUAL PARTICIPANT WILL HAVE AN OPPORTUNITY TO MEET WITH THE INSTRUCTOR AT ANY TIME AFTER CLASS AND AFTER THE TERMINATION OF THE COURSE FOR ADDITIONAL ASSISTANCE IF DESIRED.

7. THE INSTRUCTOR WILL MAKE HIMSELF AVAILABLE TO PARTICIPANTS AND ADDITIONAL CONSULTATIONS DURING PPBES IMPLEMENTATION.

8. THIS IS AN NON-PUNITIVE COURSE. THERE ARE NO EXAMS. EACH

PARTICIPANT WILL BE MOTIVATED BY THE INSTRUCTOR TO ATTAIN THE MAXIMUM LEVEL OF KNOWLEDGE THE PARTICIPANT DESIRES TO ATTAIN FOR HER/HIS PROFESSIONAL GOALS AND AREA OF RESPONSIBILITY.

9. A post evaluation for the course is available for the five units at the end of the course.

COURSE RATIONAL

The demand for accountability in instruction and administration by Florida legislators has manifested itself in the adoption by the Department of Education of a Planning, Programming, Budgeting and Evaluation System. The Division of Community Colleges has mandated that all community colleges must adopt some form of PPBES on each campus by the academic year 1975-76.

As a college professor or member of the administrative staff, you may have heard some discussion about this innovative concept of college administration and instruction, but never quite understood the topic or the terminology which has arisen with its use by specialists in this area. In order that we can all attain some degree of communication on the same level, this personalized orientation course is designed to acquaint each member of the college community to PPBES principles.

PPBES is an approach to decision making which systematically integrates all aspects of planning and implementation of academic programs. You should not be disturbed by the concept's long title, its not difficult to understand because PPBES is a tool of a process

which utilizes a way of thinking about college instructional and administrative functions as a whole. Its basic assumption is that instruction and administration are interdependent on one another in a form which permits a systems approach to humanize learning and improve educational services to the college community in an efficient manner.

This orientation course should enable you upon completion to become aware with the basic fundamental principles of the system. To accomplish this goal, you will be provided with the latest information on the subject so you can become familiar with the concept of PPBES, be aware of its problems in implementation and develop a vocabulary which will enable you to communicate with your associates as well as specialists in this field. The most important benefit however which will personally benefit you is to help you determine your role and the degree of participation that you may wish to undertake when the system is implemented. It is envisioned that as a result of taking this course you will become more effective as well as efficient in your work, whether you are in the classroom or behind a desk.

COURSE OBJECTIVES

As a result of participating in the orientation the participant should achieve the following:

1. Develop an understanding of PPBES and how it applies to higher education and the community colleges.

2. Understand the implementation process and the major problems to be encountered in establishing the system.

3. Develop a working knowledge of a PPBES model for Florida Community Colleges.

4. Understand how an effective accountability system can be designed with PPBES.

5. Develop a clearer understanding of community college administration, basic functions, principles, and concepts of effective community college administration.

6. Encourage participants to think in terms of objectives.

7. Stimulate participatants to search for alternative ways of achieving objectives.

8. Promote a more conscious evaluation of probable costs and benefits of alternative decision possibilities.

9. Encourage participants to develop skills for long-range planning.

10. Develop a self-awareness of the participants role in the implementation of PPBES and his contribution.

11. Become acquainted with the PPBES structure and how it defines and clarifies institutional objectives.

12. Learn how to use certain analytical tools such as PERT (Program Evaluation and Review Technique), the issue paper, cost-benefit analysis to assist in planning.

13. Understand management information systems design and its contribution to more effective decision-making.

14. Learn how to use Management by Objectives to improve effectiveness of participants role in his department and the college.

INITIAL LEARNING ACTIVITY

1. Read Lessinger's article "Toward a Humanistic Accountability."
2. Read Sabine's Accountability: Systems Planning in Education, pages 3 to 33.

Please remember that PPBES is only a tool with which college needs are identified, objectives are determined, priorities established, and resources allocated to achieve a coherent, comprehensive and unified course of action by the college as a whole.

On the next page you will find a pre-evaluation questionnaire on PPBES and MIS. These questions are presented here for your consideration as you start your learning process in this area. The purpose of the questionnaire is to guide your thinking about planning, program budgeting, and evaluation and be able to discuss them in class with the instructor and other participants.

PRE-EVALUATION QUESTIONNAIRE ON PPBES & MIS

1. Why does our college exist? Discuss this question in terms of the work to be done and the groups to be the direct recipients of the college's services and products.
2. What should be the long-range objectives of the college?
3. Do these objectives compliment or conflict with the community?
4. Are the college's or your department's objectives measurable?
5. In what form should information be developed to aid in the decision-making process to accomplish stated objectives?
6. Do you think that some type of information has a higher importance than others in the decision-making process?
7. What background or experience do you have or had with PPBES?
8. What do you think PPBES should accomplish for our college?
9. What do you think PPBES will accomplish for our college?
10. What hesitancies do you have about PPBES and MIS?
11. What do you consider to be the strengths of the college?
12. What do you consider to be the main weaknesses of the college?
13. What role would you like to play in the development of long-range objectives and planning for the college?
14. What contributions are you willing to make to improve the college?
15. Does the college have the necessary resources to reach these objectives?

COURSE OUTLINE

1. Structure of PPBES
   a. Terminology and Concepts
   b. Elements of Program Structure
   c. Systematic Approach to Decision-Making
   d. Linking Planning and Budgeting Systems

2. Analytical Tools
   a. Issue Papers
   b. Systems Analysis
   c. Cost-Benefit Analysis
   d. PERT Networks

3. Information Systems
   a. Information Analysis
   b. Integration of Budgeting and Management Information Requirements
   c. Data Collection
   d. Cost/Service Level Relationships
   e. Designing Information Systems

4. Behavioral Elements
   a. Effective Organizational Structures and Functions
   b. Methods of PPBES Implementation
   c. Administration by Objectives
   d. Instruction by Objectives

PERSONALIZED INSTRUCTIONAL UNIT I

INSTRUCTOR'S NAME:	Zdzislaw P. Wesolowski
INSTITUTION:	Polk Community College
COURSE TITLE:	Principles of Planning, Programming, Budgeting and Evaluation System
TOPIC:	Planning
TARGET GROUP:	Community College Staff
APPROXIMATE WORKING TIME:	1 class period

RATIONALE

The first step in PPBES is the identification of college goals and defining objectives. Planning is directed toward keeping the college doing what it is supposed to do. The process produces a series of objectives directly related toward the college system to meet its responsibility to the community in which it exists. The first phase of PPBES can also be used in an instructional area. An instructor as well as an administrator must determine academic program objectives and state goals for his course.

By using the program planning approach colleges can evaluate alternative uses of available resources in a systematic manner and construct a long range plan for the college. Most colleges are now faced with the constraint of limited resources which necessitate a long range planning for academic and support programs which will permit the achievement of overall goals of the institution.

The most recent tool for planning for administrative or instructional programs is MBO, Management By Objectives, recently renamed

as to apply to educational institutions. IBO, Instruction By Objectives and ABO or Administration By Objectives. This technique permits total participation of every individual at all levels in the organization. The concept uses a series of steps with a major focus on fulfilling specific objectives and achieving specified results. In this process a college states its main goal and objectives. In turn each member of the college staff derives concise quantifiable objectives which they agree to complete within a specific time frame. This system tends to focus on objectives and results. IBO and ABO enables colleges to become more democratic by permitting participation by members at the lowest level of the organizational structure. It is envisioned that by the use of this method in the PPBES context, a humanistic accountability in higher education will be realized.

OBJECTIVES

Upon completion of this unit you will be able to:

1. Identify planning techniques used in the PPBES model.
2. Identify college mission, goals and objectives.
3. Specify long and short term goals.
4. Formulate alternatives in your own area of responsibility.
5. Define your own goals and objectives with those of your college.
6. Demonstrate an ability to write goals and objectives.
7. Recognize the importance of planning for effective and efficient instruction and administration.
8. Evaluate your potential for participating in college decision making.

LEARNING ACTIVITIES

1. Read Haggart pages 3 to 19.
2. Read Sabine pages 61 to 99.
3. View film on Planning by WICHE/NCHEMS (30 minutes).
4. Listen to tape #2 "Introduction to PPBES, "University of Michigan.
5. Attend class lecture for Unit I
   a. Transparency #1. Systems Planning
   b. Transparency #2. Definitions of Planning
   c. Transparency #3. Silvern's Systems Model
   d. Transparency #4 to #28.
6. Participate in classroom discussions. Ask questions.

After reading the above literature, listening to the tapes you should determine that planning in the PPBES context concerns itself with what is to be accomplished. You should be able to answer such questions as, what is the mission of your college or your department, what is needed by the total needs of the educational system in which you exist, what resources are presently available and what are the college-wide objectives?

SECTION I INTRODUCTION TO SYSTEMS PLANNING

A. A historical view of why the educational institutions are being challenged.

1. The instructional crisis.
2. The financial crisis.
3. The image crisis.

B. A progressive prediction of things to come both in and out of the educational institutions.

1. The decentralization of the hierarchy.
2. The increase of emphasis on the student.
3. The impact of management planning at all levels.
4. The integration of goals, standards, objectives, certification, achievement, and evaluation.

C. A serious needs assessment of what public education must do for survival.

1. What are valid educational goals?
2. What is the future role of the district structure?
3. What can the taxpayer and student expect of the local school system?
4. Can our traditional educational institution meet the social needs challenge?

D. A personal look at what the PPBES concept holds for educational personnel.

1. What is threatening in Program Planning?
2. What benefits will Program Planning bring?
3. What Budget changes will occur?
4. Where will teachers fit into either planning or budgeting?
5. Is PPBES worth it?

SECTION II: FUNDAMENTALS OF PLANNING

A. Management:

1. The principles of management,
   a. Definition
   b. Points of concern
   c. Scope

2. The elements of management.
   a. Decision making-control
   b. Planning
   c. Organizing
   d. Communicating
   e. Coordinating
   f. Evaluation

SYSTEM FUNCTIONS

3. The role of Management.
   a. Motivate — PERSONNEL
   b. Develop — RELATIONS
   c. Innovate

4. The place of authority.
   a. Delegation of responsibility for flexibility and accountability.

SECTION III: A LOCAL NEEDS ASSESSMENT

A. Status Summary:

   1. How, Where and Why to gather:
      a. Demographic data
      b. Occupational trends
      c. Manpower needs
      d. Student development
      e. Community relationships
      f. Human resources
      g. Crime and delinquency
      h. Dropouts
      i. College entrants
      j. Technical trainees

B. How it should be:

   1. Statements of philosophy
   2. Clarification of goals
   3. Determination of long term goals
   4. Using instructional and management objectives.

C. The discrepancy: (need)

   1. The difference between where we are and where we want to be.

D. 1. Urgent and attainable
   2. Important, but improbable
   3. Nice, but impossible.

SECTION IV: WHAT CAN WE DO?

A. Methods and technology:
   1. Multi-dimensional financial accounting to --
      a. determine accurate costs
      b. identify high costs areas
      c. better allocate resources
      d. build stronger budgets.

2. Instructional strategy model.
   a. assess student need
   b. select learning objectives
   c. determine student activities
   d. identify resources
   e. evaluate achievement

3. Student information records.
   a. testing and guidance
   b. attendance
   c. grade reporting
   d. scheduling
   e. follow-ups

4. Resource allocation.
   a. budget distribution
   b. inventories
   c. facility surveys
   d. projections and feasibility studies

5. Personnel.
   a. motivation efforts
   b. utilization data
   c. inservice training
   d. evaluation
   e. differentiated staffing
   f. attrition rates

6. Acquisition
   a. central stores
   b. bidding
   c. equipment surveys
   d. site projections

7. System effectiveness.
   a. accrediation standards
   b. system analysis
   c. equipment survey
   d. personnel training
   e. management reports

SECTION V: HOW CAN WE ACCOMPLISH COMPREHENSIVE PLANNING?

A. Commitment is essential.
B. Advantages of Task Force.
C. Melding isolated components.
D. Drafting the road map.
   (PERT changing objectives)

SECTION VI: THE ELEMENTS OF A FIVE YEAR PLAN

A. The flow of continunity.

1. Year one:
   a. Is it a high priority?
   b. Can we do it?
   c. What will be the benefit?

2. Year two:
   a. What carries over from year one?
   b. What to implement from year one planning.
   c. What to plan for later.

3. Year three:
   a. What carries over.
   b. What to implement or modify.
   c. What to plan for later.

4. Year four:
   a. What carries over.
   b. What to implement or modify or evaluate.
   c. What to plan for later.

5. Year five:
   a. What carries over.
   b. What to implement, modify, evaluate, forecast.
   c. What to plan for later.

MANAGEMENT BY OBJECTIVES

Introduction

Management by objectives is a method of management developed and advocated by Dr. George S. Odiorne, Dean, College of Business, University of Utah. It is based on the theory that too often members of management - although they may be extremely qualified - fail to perform with maximum effectiveness merely because they don't know what is expected of them. They are unaware of the goals sought, the purpose of their work, or how well they are doing in relation to those goals. For example, try this test in your organization:

1. Take a single sheet of paper and on it list the answers to the following questions about one of your key subordinates:
   a. What are his major areas of responsibility in his job this year?
   b. For each of these areas of responsibility, how will you measure this performance in terms of results expected (outputs) at the end of this year?
2. Ask that same subordinate to answer the same questions about his own job without having seen your notes.
3. Compare his responses with your responses. Chances are that you and he will not be in agreement on about 25% of the statements.

This matched interviewing has been done on a widespread basis in all kinds of firms among managers who manage others. The difference between the average boss and subordinate was 25%. What are the implications of this discrepancy? Pretty serious! For example:

- If the subordinate and superior aren't in agreement on specifically what constitutes the subordinate's job, how valid are your appraisal reports?
- Is bad performance due to the man's weakness in his job or is it due to the fact that he doesn't know what his job is?
- Are your pay raises and managerial bonuses being allocated on merit or are they windfalls? If a raise or promotion is withheld, is it because the man didn't know what was expected of him?
- If the subordinate doesn't know what the whole job is, what good does motivational effort do? Doesn't it simply press him into working harder toward irrelevant or incorrect goals?

As a system of managerial leadership, management by objectives is of substantial benefit, particularly as it relates to several key problems in managing an organization.

(a) What is expected in terms of objectives.

(b) Obtaining teamwork - by identifying common goals.

(c) Programming work - by setting terminal dates for tasks.

(d) Recognizing progress - through mutual agreement on goals and accomplishments against them.

(e) Salary administration - increase based on merit and recognition of performance.

(f) Assessing promotability - by identifying potential for it.

In brief, Management by Objectives is a managerial method whereby the supervisor and subordinate managers in an organization identify major areas of responsibility in which the man will work, set some standards for good - or bad - performance and the measurement of results against those standards.

What's Involved

A natural question of any subordinate supervisor becoming involved in such a program is "Where do I fit in?", "Where do I begin?", and "What steps are involved?" The following pages provide a brief outline of the working procedure indicating how the manager implements the program and the role of the subordinate manager or supervisor.

What's involved takes three major stages. Stated simple, they are:

(1) At the beginning of each year (budget year) the manager and each of his subordinates agree on objectives of performance for this year.

(2) During the year a follow-up is maintained.

(3) At the end of the year, the manager and subordinates take out their objectives and review accomplishments.

Let's look a little more closely at each of these and see what the manager or supervisor does to accomplish these steps.

I. THE PERFORMANCE BUDGET

(The manager does this at the beginning of each calendar or budget year.)

Step One - Clarify his working organizational chart.

The manager is responsible for Performance Budgets for only those reporting to him. Area of responsibility and lines of organization must, therefore, be reviewed. The manager will sketch out the

actual organization of the group under his supervision; show titles, duties and relationships.

Step Two - Review each subordinate.

The manager will take stock of each of the men with whom he'll be setting Performance Budgets. In other words, he will review his past work assignment, appraisals, salary progress, etc. He will also note special factors about him and his work: Major responsibilities, what's going to be expected of him, etc.

Step Three - Set objectives for the new year with each man individually.

The final step in the performance budget is actually meeting with the subordinate and defining objectives for the next year.

Prior to this meeting, the supervisor or manager will have asked his subordinate to prepare for the discussion by thinking through the results which he is getting, a few areas in which he can do even better, what will be required for this improvement and what the manager can do, refrain from doing or do differently which may help the subordinate improve his results.

The subordinate should be prepared to discuss the four or five management areas he has selected for improvement. Both try to agree on what can and should be done for each specific area.

At the end of the discussion, both subordinate and manager should review all the points agreed upon. Notes should have been made on the important points, especially plans for improvement, objectives and target dates.

Two copies of this final draft should be typed. The manager keeps one and the subordinate keeps one.

Working from the final agreement, the manager reviews with the subordinate what he may do to help the subordinate accomplish his objectives and note these suggestions on his copy, possibly including them in his objectives.

II. THE FOLLOW-UP

Occassionally, the manager reviews the Performance Budget with each subordinate to see:

(a) Are the objectives still good objectives.

(b) Are the proposed methods or approaches for improvement still appropriate.

(c) Are target dates being met.

(d) Under present circumstances, should anything be amended.

(e) The manager may also ask himself if he is delivering on his part in helping the subordinate as he had planned.

In addition to periodically checking the Performance Budget with each subordinate, there are several other things a manager can do to facilitate management by objectives.

(a) Set an example by his own performance and methods of managing.

(b) Recognize progress of subordinates. Keep Currently informed on what each subordinate wants to do, can do, and is doing.

(c) Keep having informal discussion of performance, progress, and results as often as possible.

III. THE PERFORMANCE REVIEW

Step One: Near the end of the year, the manager will ask each man with whom a Performance Budget was set to prepare a brief "Statement of Performance Against Budget" using his copy of the performance budget as a guide. The subordinate will be told:

(a) Don't rewrite the whole statement. All that is required is a verbal (or numerical if possible) estimate of his accomplishments compared to his objectives.

(b) Give reasons for variance.

(c) List additional accomplishments not budgeted.

Step Two: A date will be set to go over the report in detail. In the meeting, the causes for variances will be thoroughly discussed.

(a) Was it the subordinate's fault.

(b) Was it some failure on the part of the manager.

(c) Was it beyond control.

(d) An attempt will be made to reach agreement on just how good the subordinate's performance was and where he fell down.

Step Three: An opportunity will be provided so that the subordinate may discuss any other things on his mind. These might include relationships on the job, opportunity, job related personnel problems, etc.

Step Four: The final step is setting the stage for developing the Performance Budget for the coming year.

SUMMARY

Management by Objectives is an invaluable tool to an organization in terms of objectives, teamwork, programming work, recognizing progress and development of personnel.

To the individual, the basic advantage of the program is that the man and his boss establish an understanding in advance of the period about what the major area of activity and responsibility are, what constitutes a good job (or a bad one) and what conditions will exist at the end of the period if results are to be considered satisfactory on all counts.

UNIT EVALUATION

INSTRUCTOR: _____

DATE: _____

I. Session Appraisal

A. Please rate your degree of INTEREST in the subject of today's session.

LOW | | | | | | HIGH (check one)

B. Please rate the VALUE RECEIVED from the session.

LOW | | | | | | HIGH (check one)

C. What were the most effective segments of the unit? Why?

_____

_____

D. What were the least effective segments? Why?

_____

_____

E. What suggestions do you have?

_____

_____

II. Instructor Appraisal - Rate the instructor using the designation indicated below for the values of your rating. 5 - Excellent, 4 - Good, 3 - Satisfactory, 2 - Acceptable, 1 - Unsatisfactory.

1. Organization & Topic Coverage
   a. Was presentation well organized? _____
   b. Was discussion encouraged & guided? _____
   c. Was topic covered adequately? _____
   d. Was topic relevant to your job requirement? _____
   e. Were stated unit objectives met? _____

2. Presentation
   a. Was explanation clear? _____
   b. Was instructor prepared? _____
   c. Does instructor stimulate interest? _____
   d. Was best use made of visual aids? _____

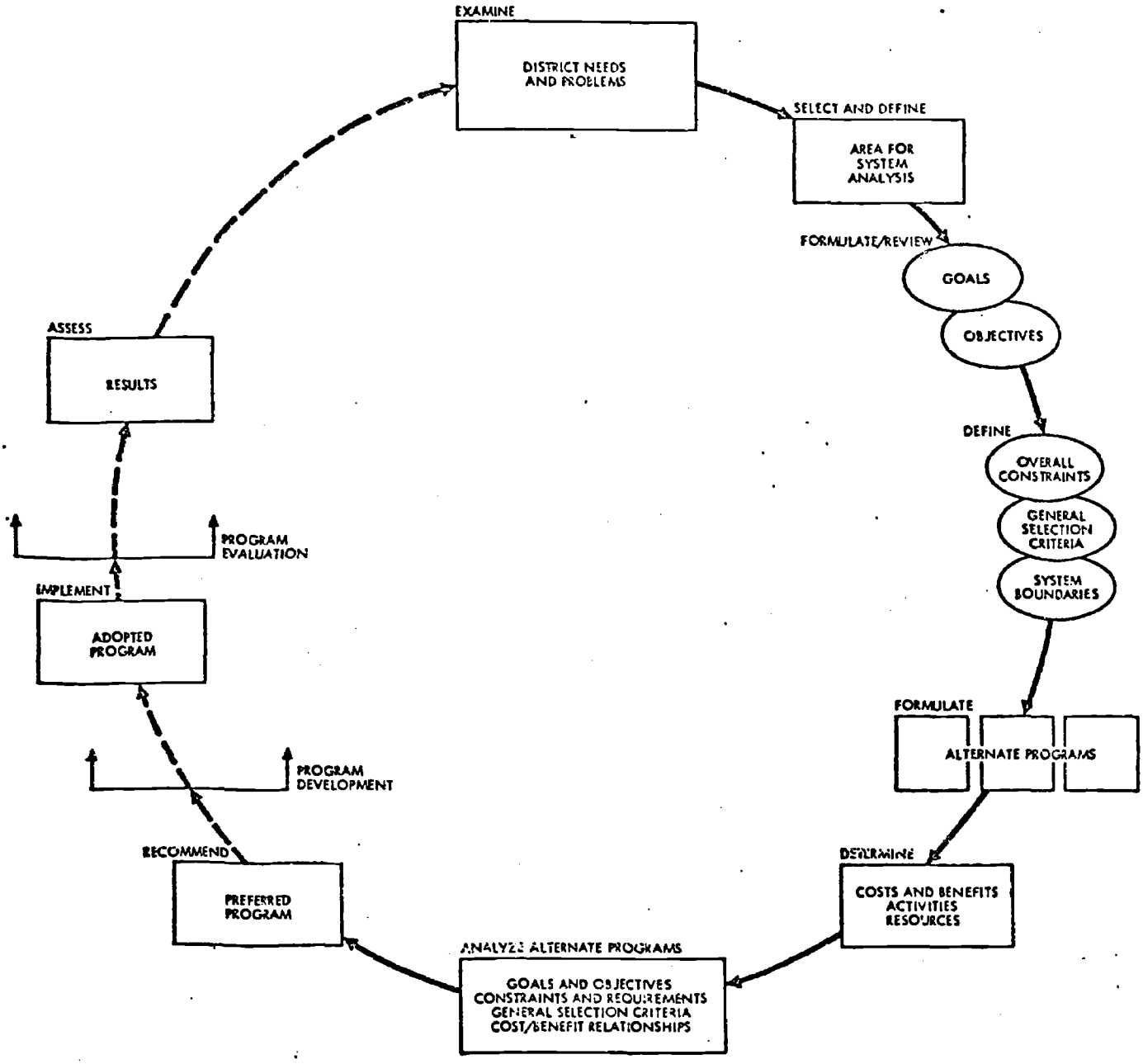
III. What questions do you have as a result of today's session?

_____

_____

_____

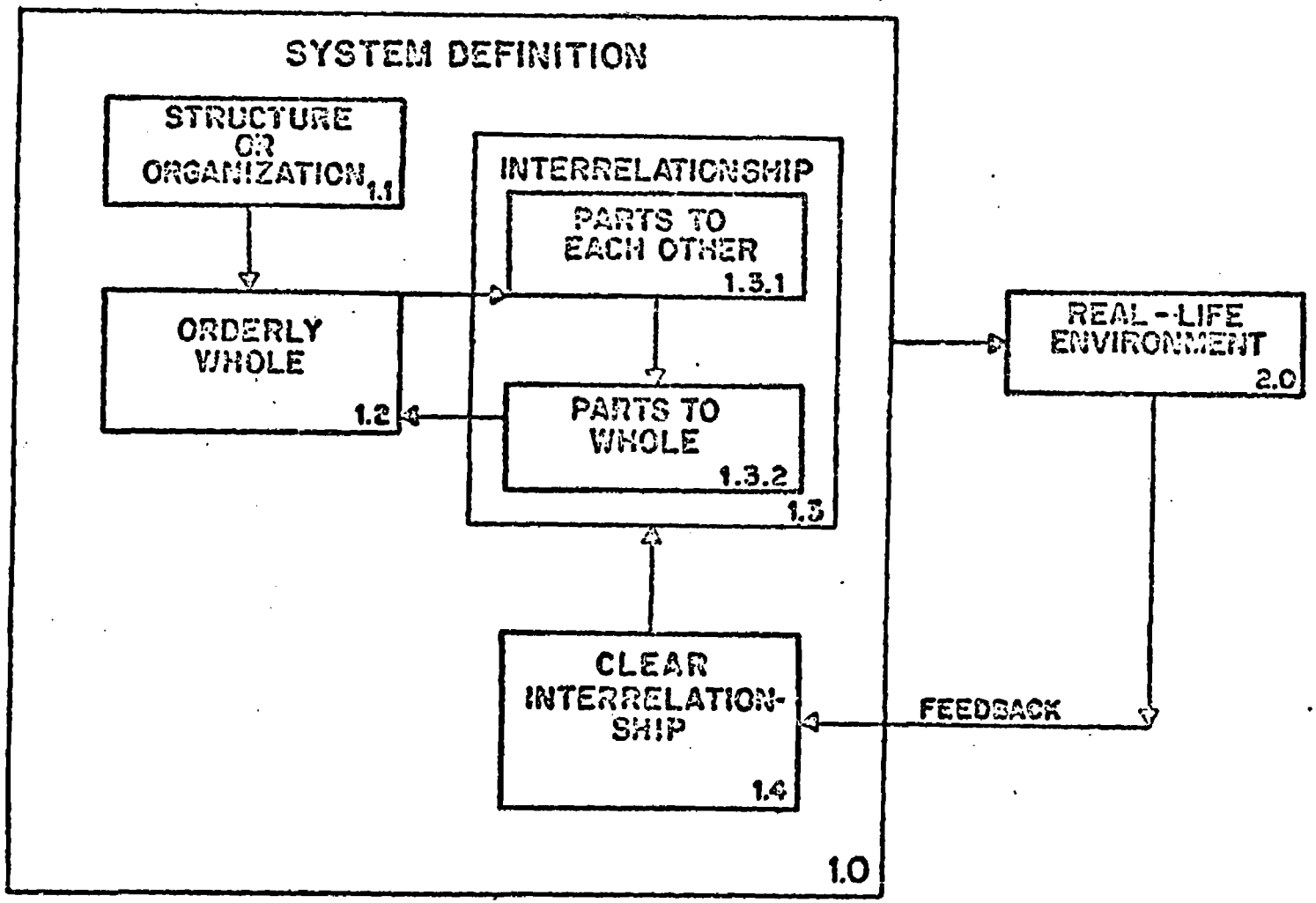
Process for Systems Analysis



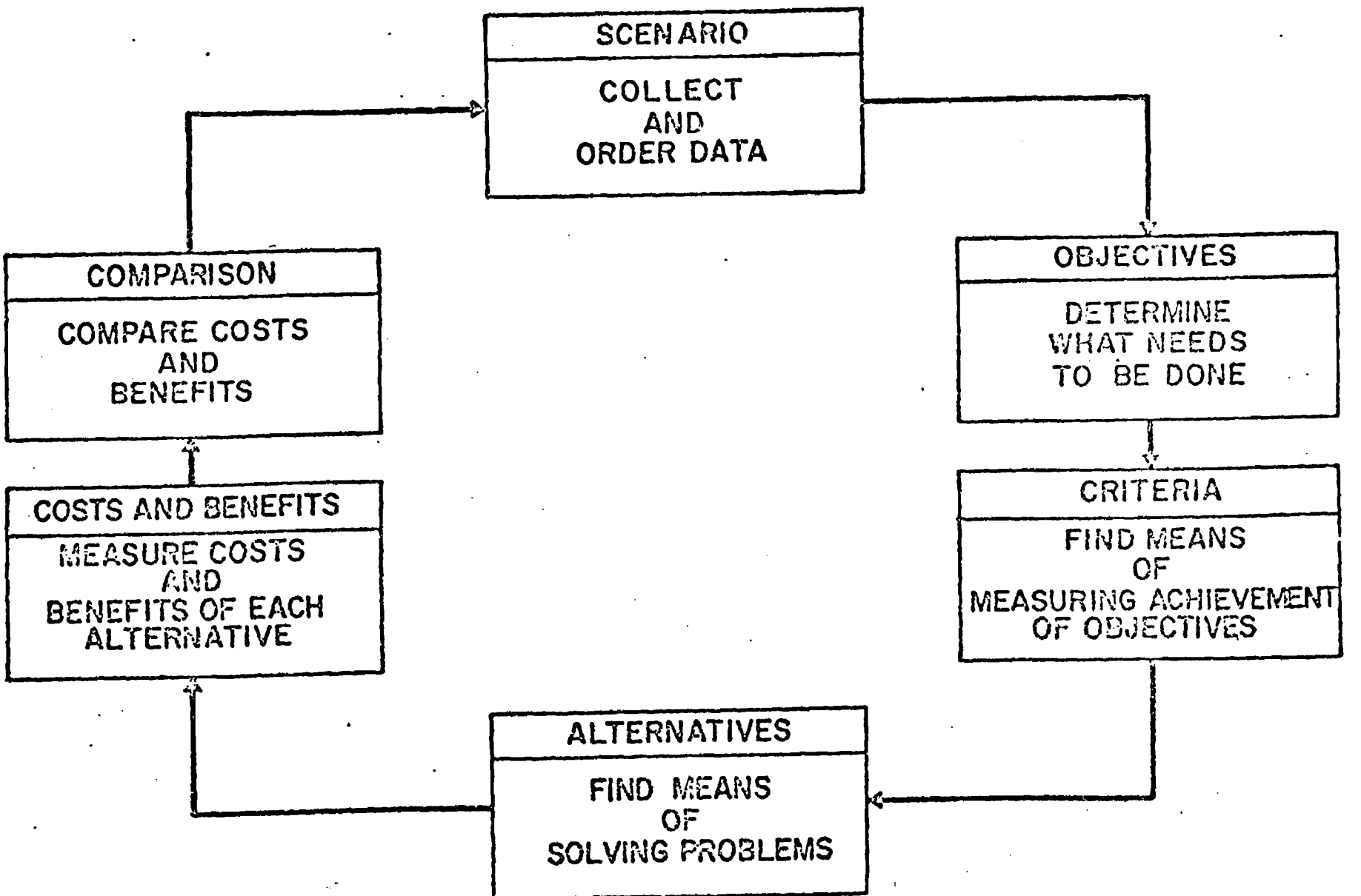
—PPBS Manual for California School Districts
Advisory Commission on School District Budgeting and Accounting
California State Department of Education

LEONARD C. SILVERN'S MODEL OF THE DEFINITION OF A SYSTEM

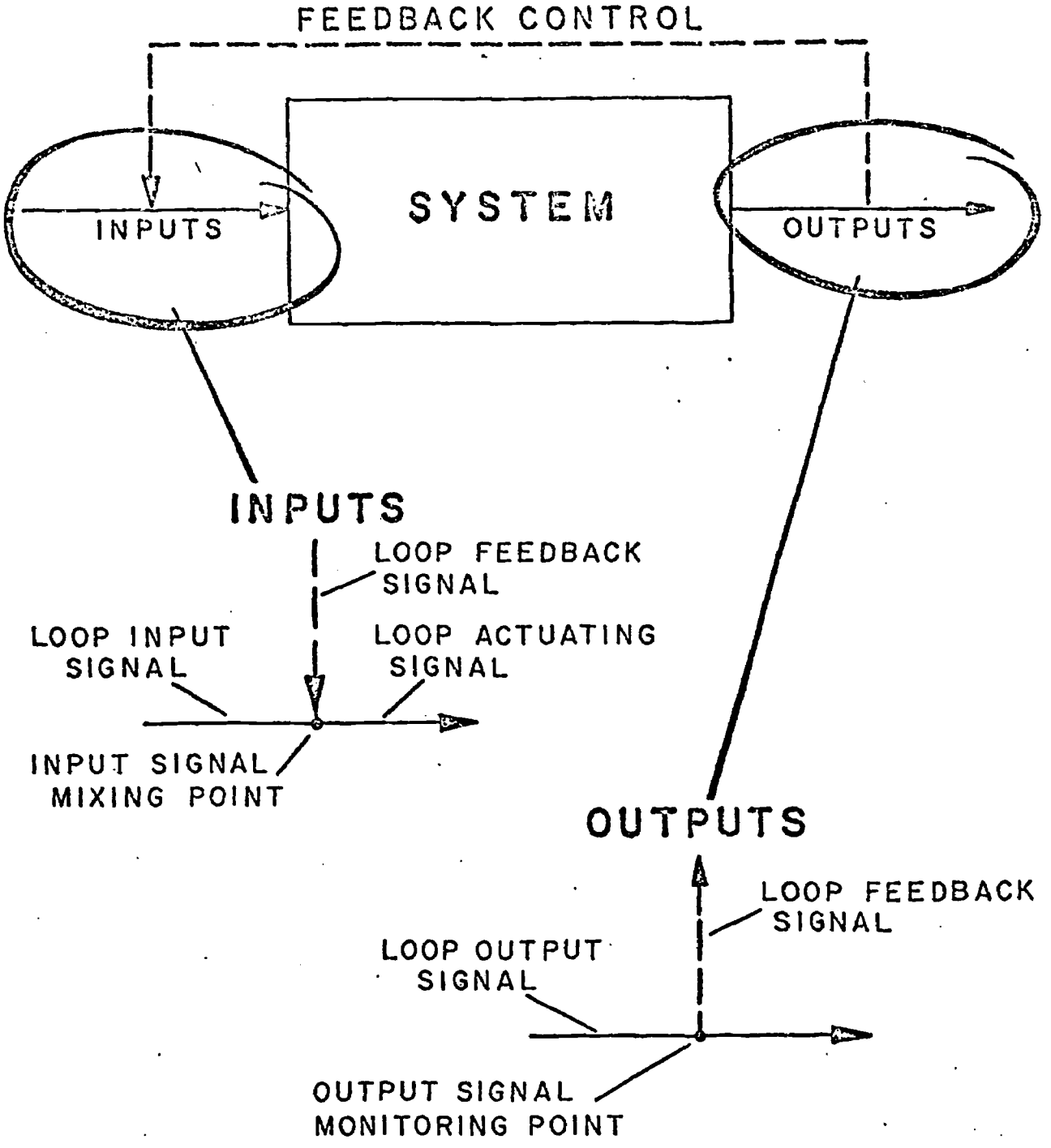
"A SYSTEM IS THE STRUCTURE OR ORGANIZATION OF AN ORDERLY WHOLE, CLEARLY SHOWING THE INTERRELATIONSHIP OF THE PARTS TO EACH OTHER AND TO THE WHOLE ITSELF."



THE SYSTEMS ANALYSIS APPROACH



FEEDBACK CONTROL LOOP



Goals and Objectives lie at opposite ends of a continuum:

GOALS		OBJECTIVES
1. Philosophical	◁——▷	1. Operational
2. Unmeasurable		2. Measurable
3. Timeless		3. Time-bound
4. Provide General Direction		4. Specify Observable Outcome

A GOAL is a philosophical statement describing one or more classes of desired outcomes that provide general direction for an educational system, characterized by relative timelessness and unmeasurability.

An OBJECTIVE is an operational statement describing a single desired outcome of an educational system, characterized by relative time-boundedness, measurability, and observability.

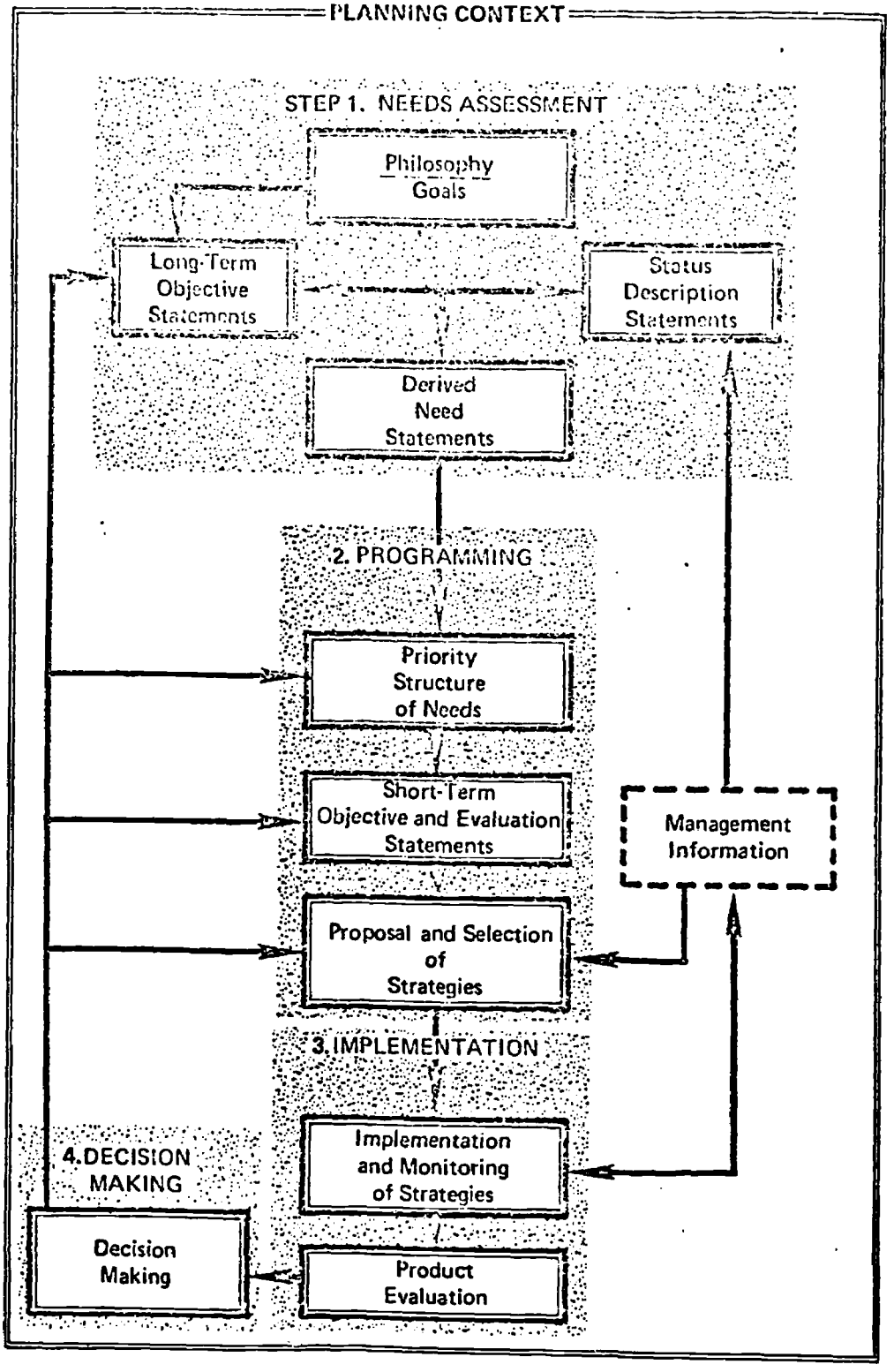
The planning model consists of 4 major steps:

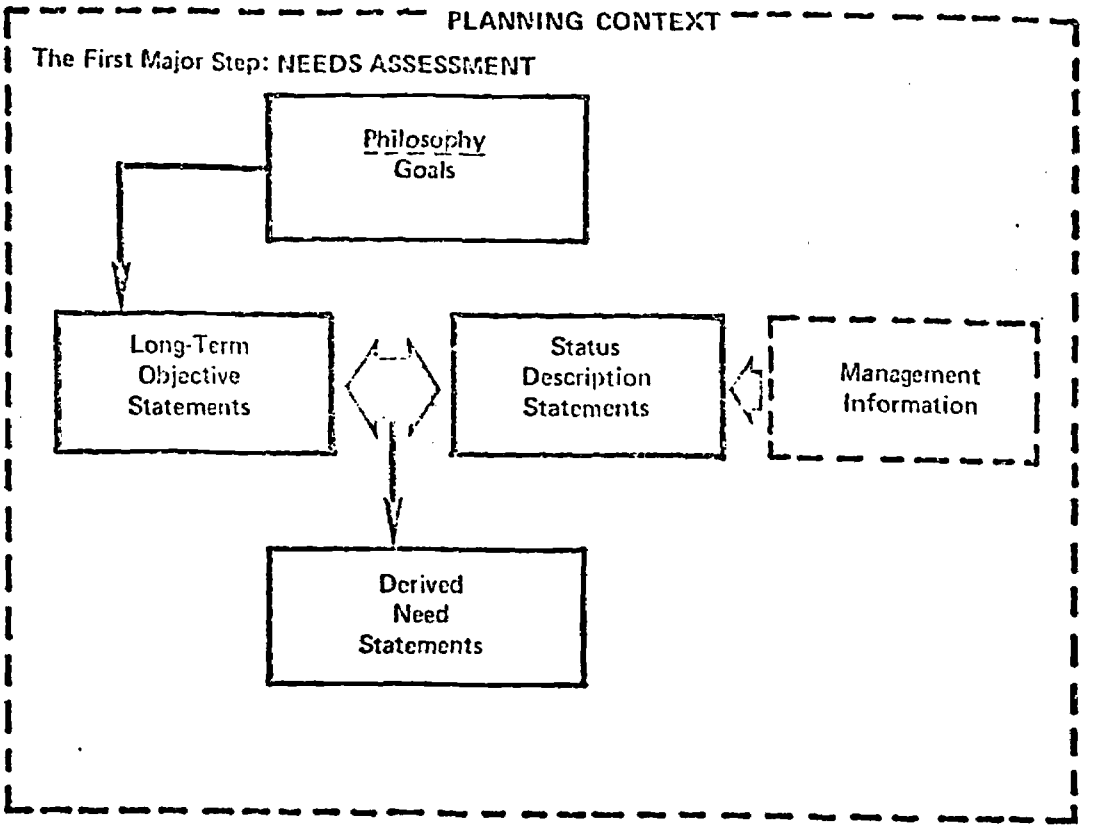
1. NEEDS ASSESSMENT, in which you compare "where you want to be" (desired outcomes) with "where you are now" (current status), for the purpose of deriving your needs.

2. PROGRAMMING, in which you determine what you are going to do to meet the needs you derived.

3. IMPLEMENTATION. Here you carry out the program you developed in the previous step.

4. DECISION MAKING in which you decide if what you did had the desired effect and why. The entire planning model is a tool to achieve effective decision making.


PLANNING CONTEXT
STEP 1. NEEDS ASSESSMENT
Philosophy
Goals
Long-Term
Objective
Statements
Status
Description
Statements
Derived
Need
Statements
2. PROGRAMMING
Priority
Structure
of Needs
Short-Term
Objective and Evaluation
Statements
Management
Information
Proposal and Selection
of
Strategies
3. IMPLEMENTATION
Implementation
and Monitoring
of Strategies
4. DECISION
MAKING
Decision
Making
Product
Evaluation



The Needs Assessment step consists of four activities:

1. **PHILOSOPHY/GOALS**

   Goals are philosophical outcome statements that provide general direction and are timeless and unmeasurable.

2. **STATEMENT OF LONG-TERM OBJECTIVES**

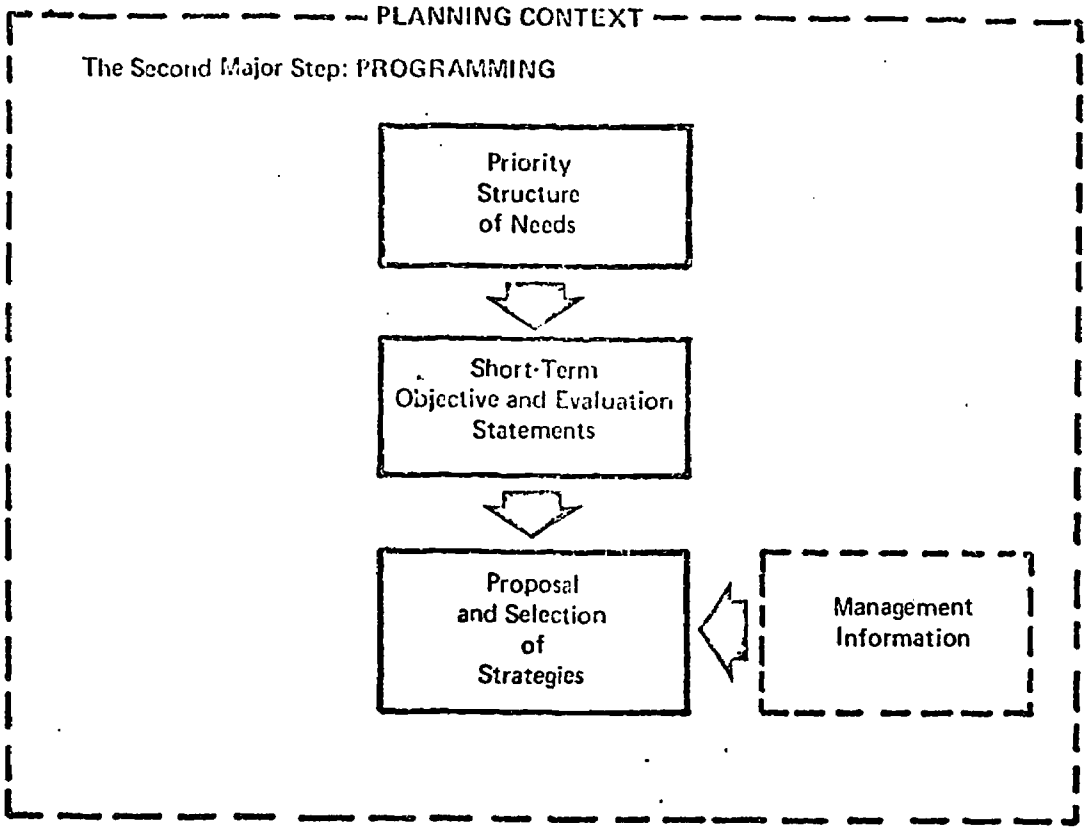
   These are broad statements of observable, measurable, operational outcomes that are consistent with your goals. The long-term objectives should be comprehensive in that they should cover all desirable future outcomes.

3. **STATUS DESCRIPTION STATEMENTS**

   A status description statement should be developed for each long-term objective, telling what the current situation is with respect to the accomplishment of the long-term objectives. These statements are based on management information.

4. **DERIVED NEED STATEMENTS**

   These are statements of the differences between your long-term objectives and your current status descriptions.

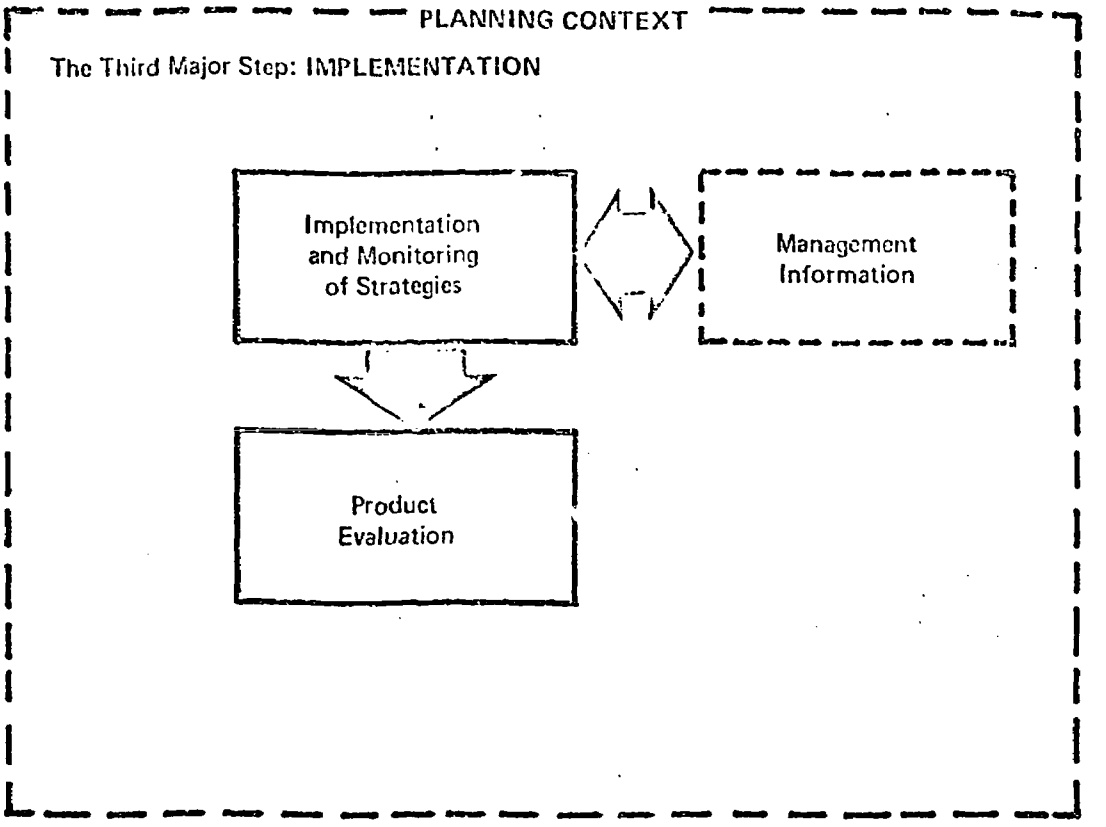


The Programming step consists of three activities:

1. **PRIORITY STRUCTURE OF NEEDS,** in which you determine the relative importance of the needs you derived in the previous activities. This structuring will allow you to decide on which needs to work immediately and which to defer action to a later time.

2. **SHORT TERM OBJECTIVE AND EVALUATION STATEMENTS.** These are specific statements of observable, measurable outcomes that, if achieved, will reduce or eliminate an identified priority need. These statements also include the criteria by which the achievement of your objectives will be evaluated later on.

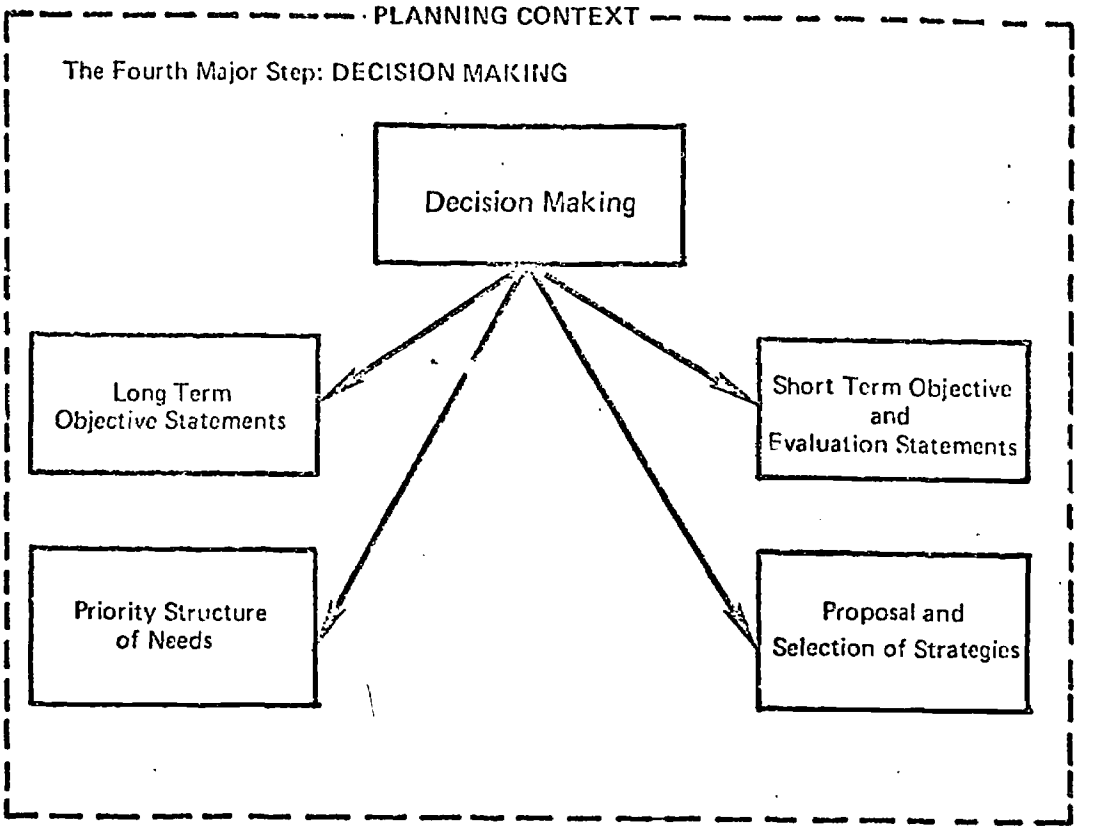
3. **PROPOSAL AND SELECTION OF STRATEGIES.** In this activity, from a variety of possible alternatives, you decide which actions would best help you achieve your short-term objectives. Consider your resources (management information) in deciding the feasibility of strategies.



Implementation consists of two activities:

1. IMPLEMENTATION AND MONITORING OF STRATEGIES. The strategies previously selected are carried out and appropriate management techniques (monitoring) are applied to assure that there is progress toward the anticipated outcomes. The monitoring generates updated management information.

2. PRODUCT EVALUATION. The previously stated evaluation activities are carried out (from Short Term Objective and Evaluation Statements) and the relative achievement of short term objectives is determined.



DECISION MAKING is the process by which the results of your evaluation are used to decide whether any of four previous activities need modification. These activities are:

Long Term Objective Statements

Priority Structure of Needs

Short Term Objective and Evaluation Statements

Proposal and Selection of Strategies

GOAL OF LONG-RANGE PLANNING

Over the long-term it is hoped that instituting an integrated system for long-range planning will effect the following outcomes:

1. definition of College operation in terms of programs aimed at achieving specific goals;
2. definition of the interoperative communication network by means of a subsystem model of College operation;
3. definition of position responsibilities in terms of program objectives;
4. evaluation of College operation in terms of program objectives;
5. development of a mechanism which promotes and rewards goal-oriented innovation at all levels of College operation;
6. development of a program-oriented long-range plan;
7. provision for a more effective and efficient utilization of all resources available to the College;
8. generation of an output-oriented program budget for state allocation requests;
9. development of a Management Information System which offers a basis for more valid decision-making.

LONG RANGE GOALS OF POLK COMMUNITY COLLEGE

A. To provide instruction to meet the needs of a changing student body.

(1) Faculty preparation to meet these needs.

(A') To develop a cosmopolitan and community college oriented faculty.
(1') Recruitment
(2') Re-training

(B') To provide opportunity for in-service education.
(1') Off-campus instruction
(a) Methodology
(b) Discipline

(2') On-campus instruction
(a) Visiting professors
(b) Workshops, seminars, etc.
(1) Utilizing PCC faculty
(2) Other expertise
(c) Interdisciplinary consortia

(2) To refine the diagnostic process for students and to provide programs commensurate with their interests and abilities.

(A') To bring about an awareness by the faculty of the interests and capabilities of the students.
(1') Development of adequate diagnostic tools
(2') Utilization of diagnostic tools

B. To provide a curriculum as the vehicle to meet the needs of the students and prepare them to take their place in society.

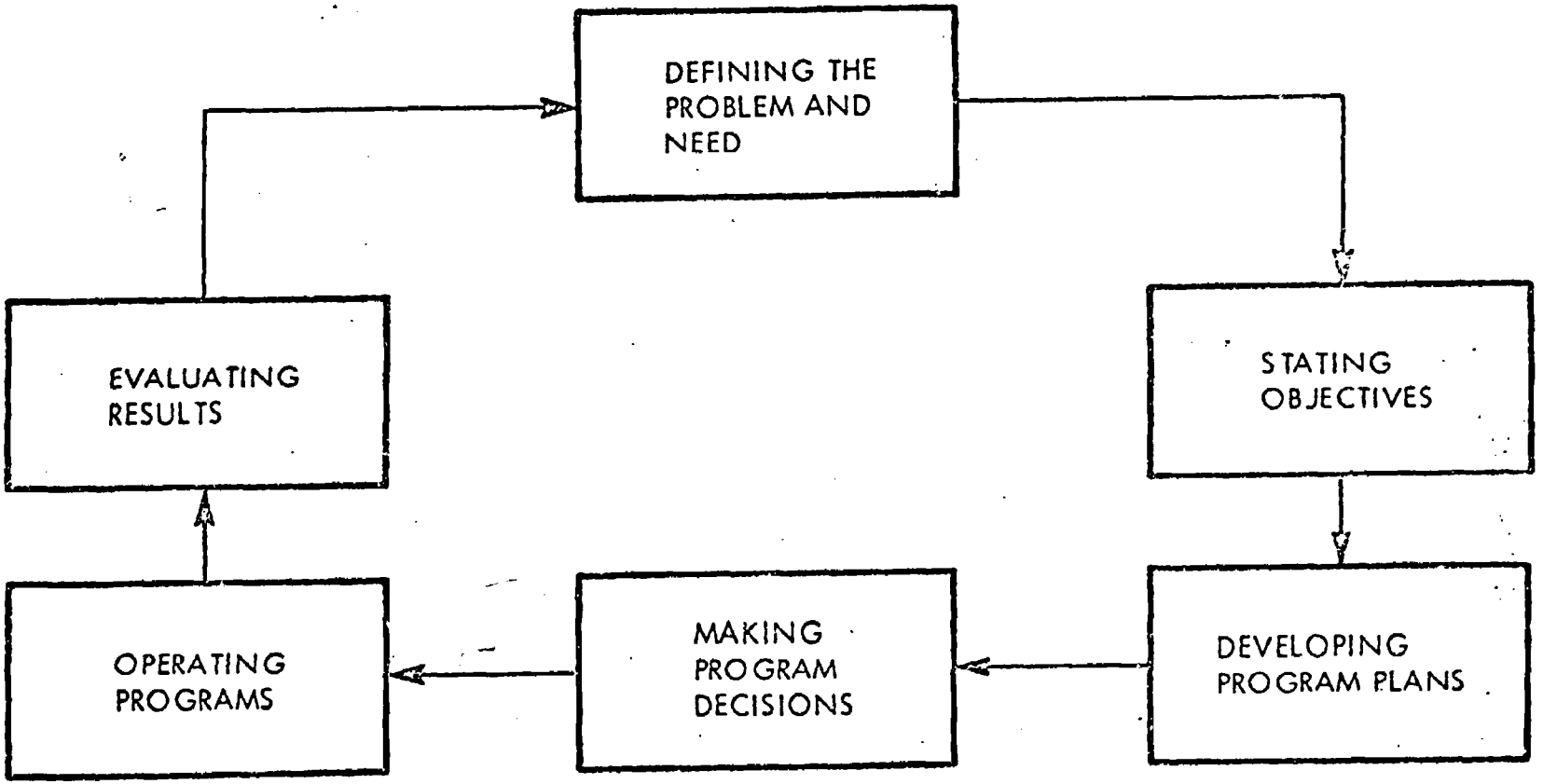
(1) To coordinate curriculum planning through all available sources.
(2) To provide opportunity for individualized programs developed from student goals.
(3) To provide various approaches to learning within the curriculum structure.

C. To provide research for program and staff improvement.
(1) To develop the means for providing data.
(2) To provide for effective distribution of data.
(3) To provide for effective use of data.

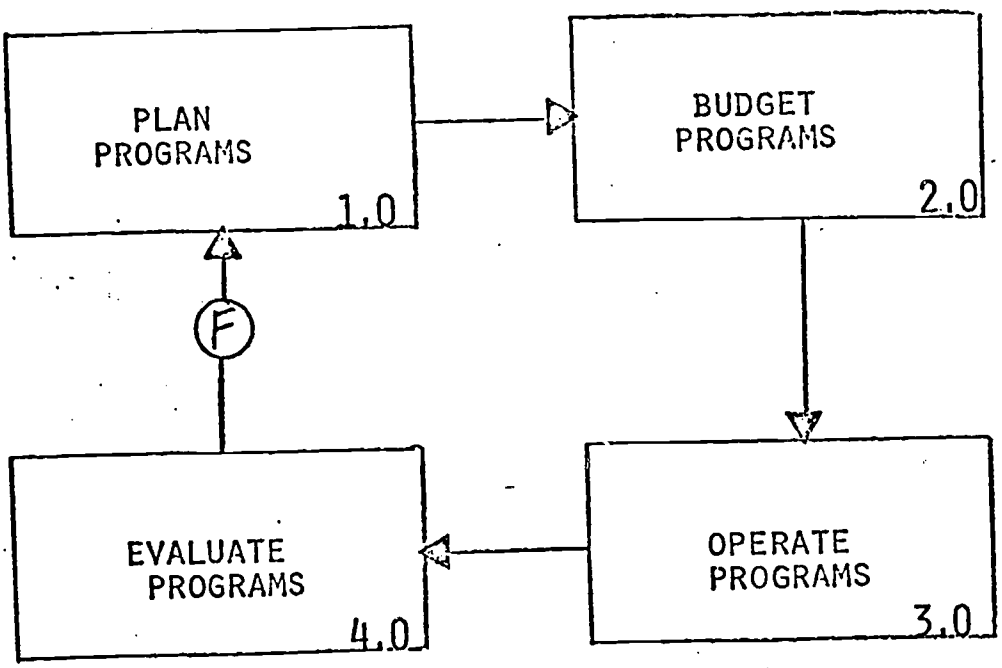
D. To provide the organizational structure and supportive staff to service the institution.

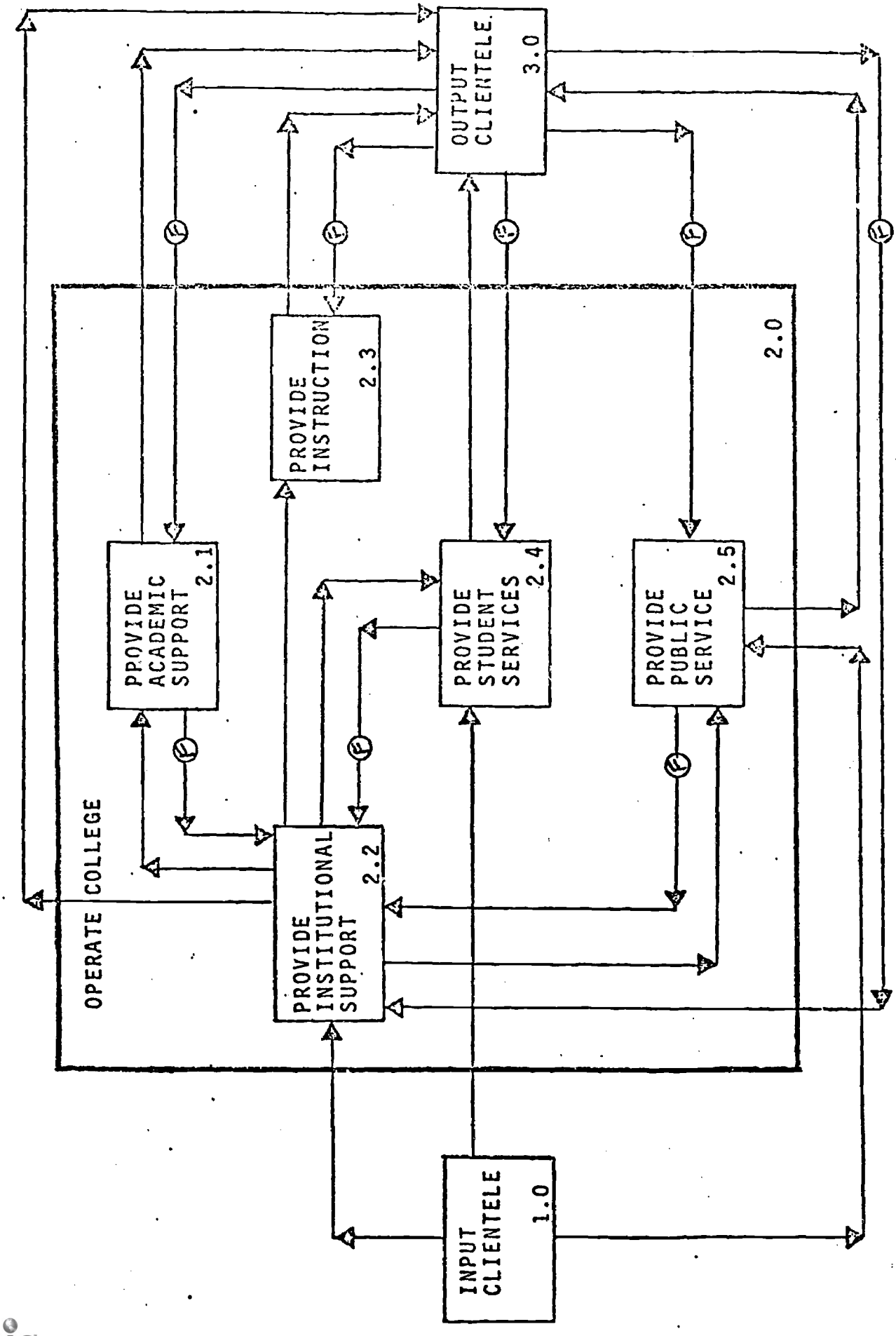
(1) To develop an efficient and effective organizational structure.
(2) To develop a qualified supportive staff.
(3) To provide quality service within all areas of the institution.

GENERAL PLANNING APPROACH

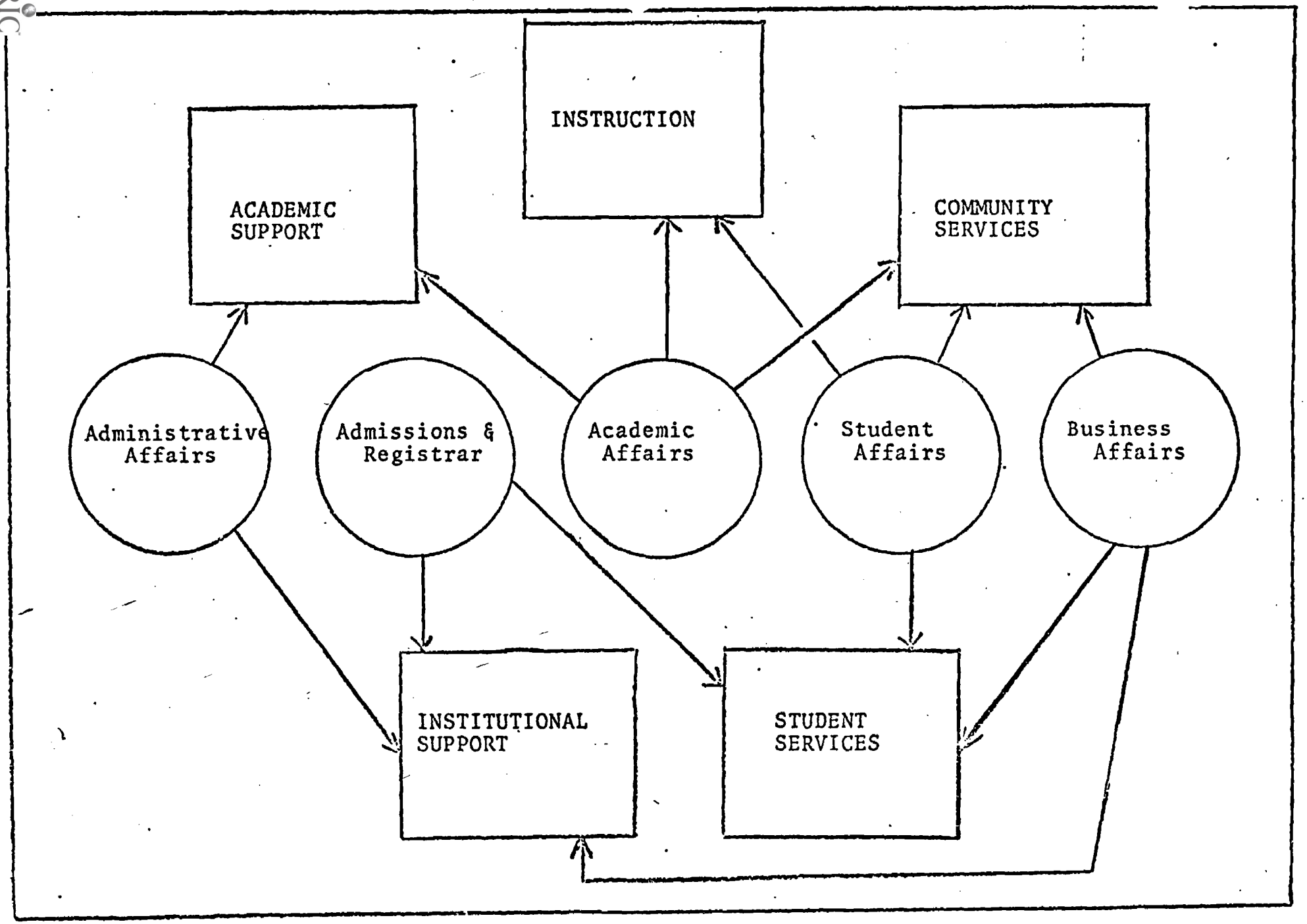


THE PLANNING PROCESS

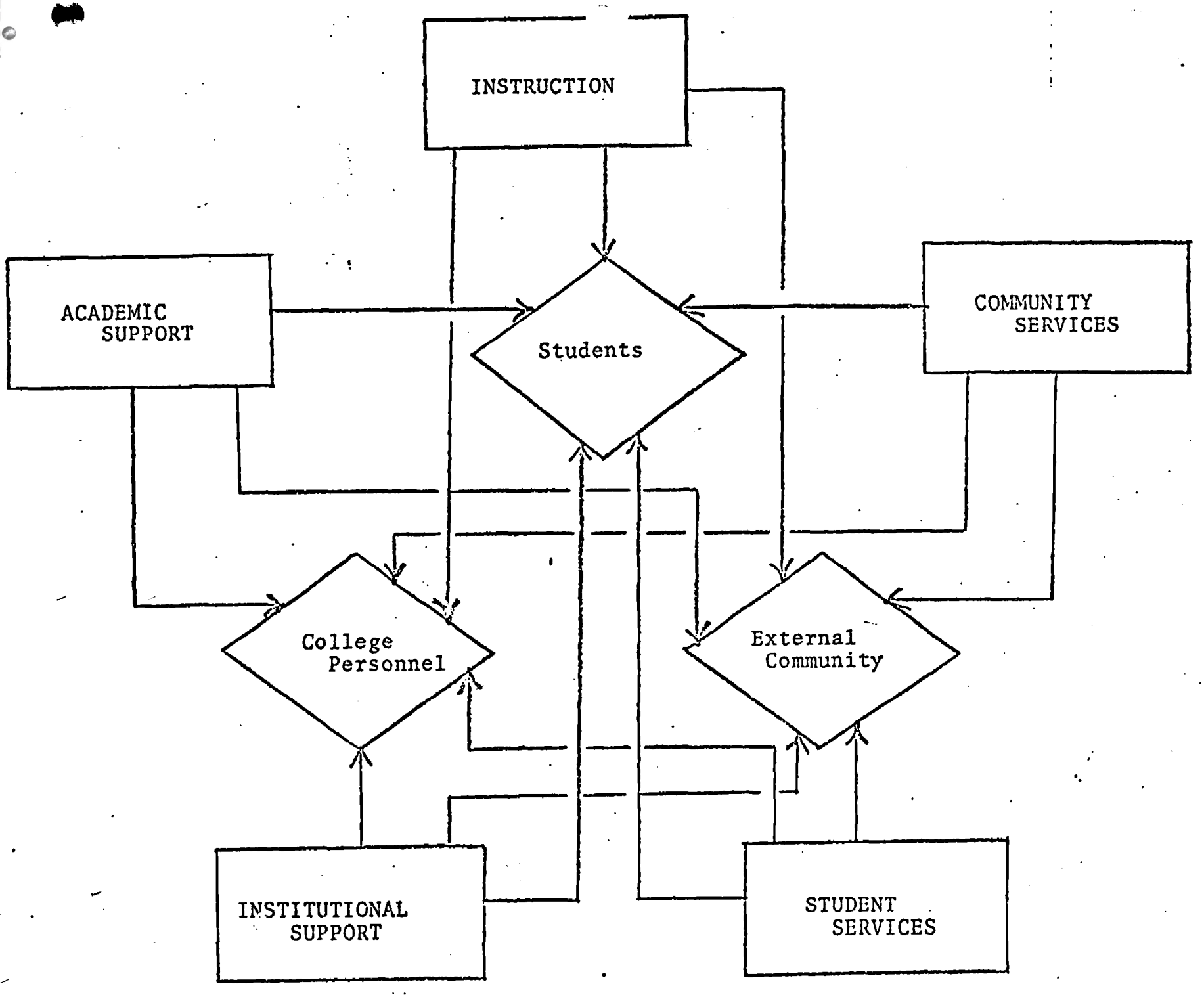




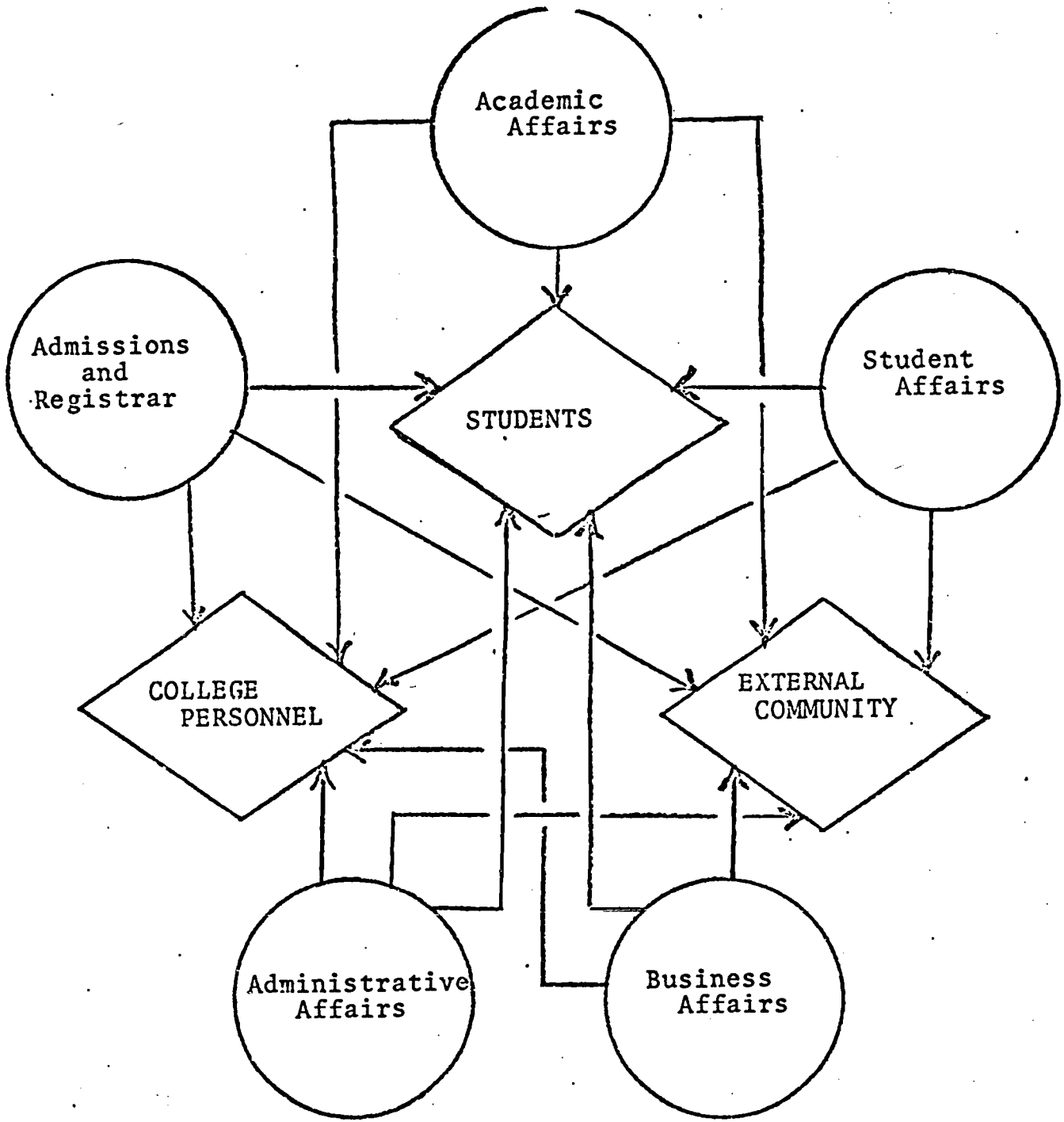
Model of College Operating System



Impact of organizational units on programs of college.



Impact of programs of college on clientele groups.



Impact of organizational units on clientele groups.

THE ISSUE PAPER OUTLINE

I. What is the problem?

- A. Critical issue
- B. Description, causes
- C. Magnitude
- D. Groups affected and their needs (Quantify)

II. What is the program objective: desired condition?

- A. Criteria for measuring and evaluating effectiveness as related to the objective
- B. Problem contribution to objective
- C. Cost, feasibility, purpose of desired condition

III. List concurrent activities or factors acting on problem (for and against)

- A. Other agencies' activities
- B. This agency's related activities

IV. List working constraints

- A. How time influences the problem, solution
- B. Political environment
- C. Philosophy of decision-makers
- D. Resources

V. List the alternative solutions to the problem

- A. Options
- B. Approaches and methods

VI. Proposed action for choosing among the alternatives

- A. The recommended next step
- B. Anticipated problems with the next step

IMPLEMENTATION OUTLINE PLAN FOR PLANNING, PROGRAMMING, BUDGETING AND EVALUATION

PLANNING

1. Select goals. Generate objectives.
2. Identify needs of College publics in relation to services provided.
3. Identify resources required to fulfill College needs.

PROGRAMMING

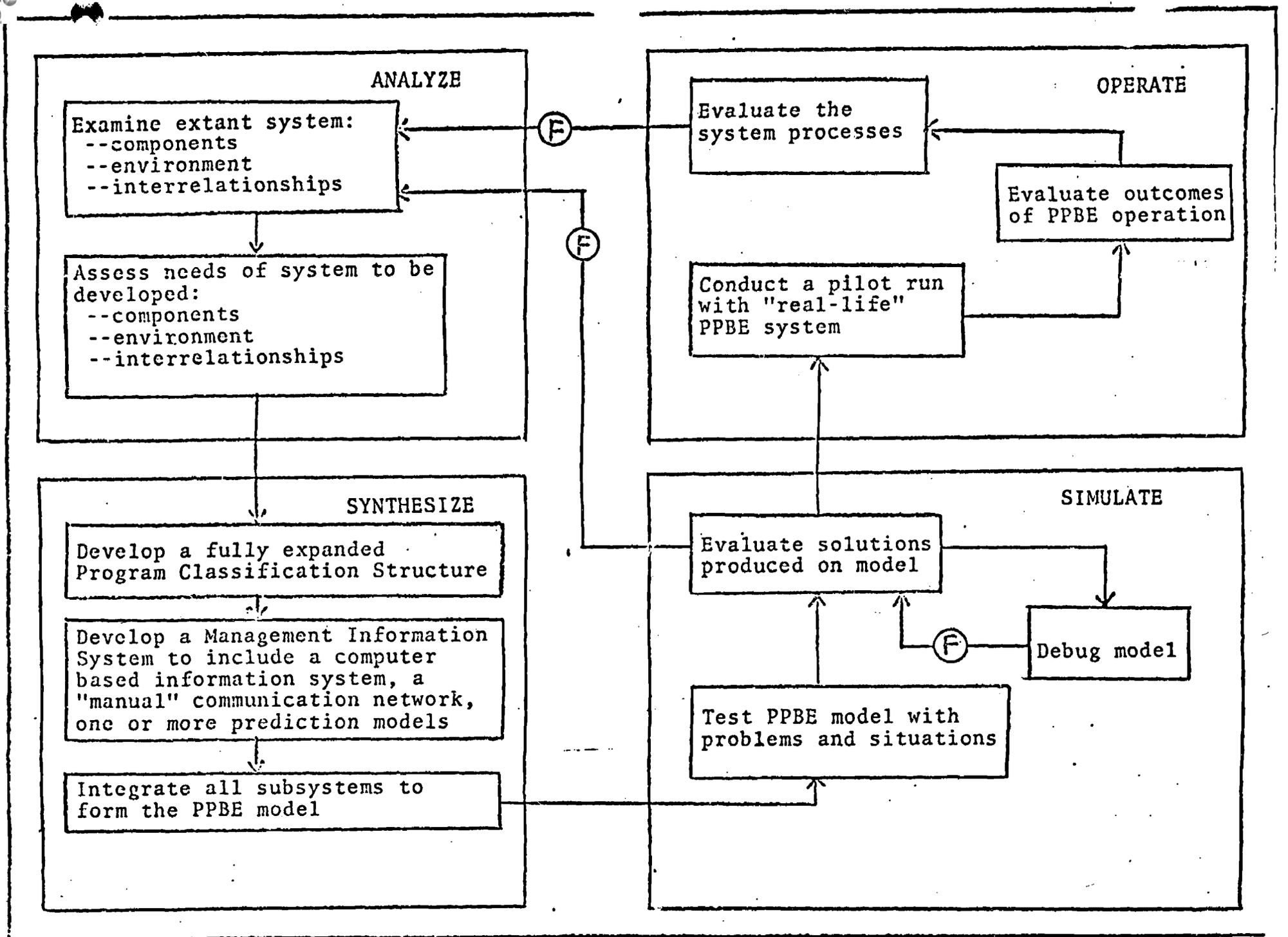
1. Identify task force teams.
2. Define areas of responsibility of College personnel.
3. Define performance objectives for members of task force teams.
4. Define medias of communication.
5. Develop a computer based Management Information System for decision-making.
6. Generate alternative set of activities and services.

BUDGETING

1. Develop a program budget.
2. Account for use of College resources (people, facilities, supplies).
3. Relate resources to output.
4. Formalize plans, accounting and reporting.

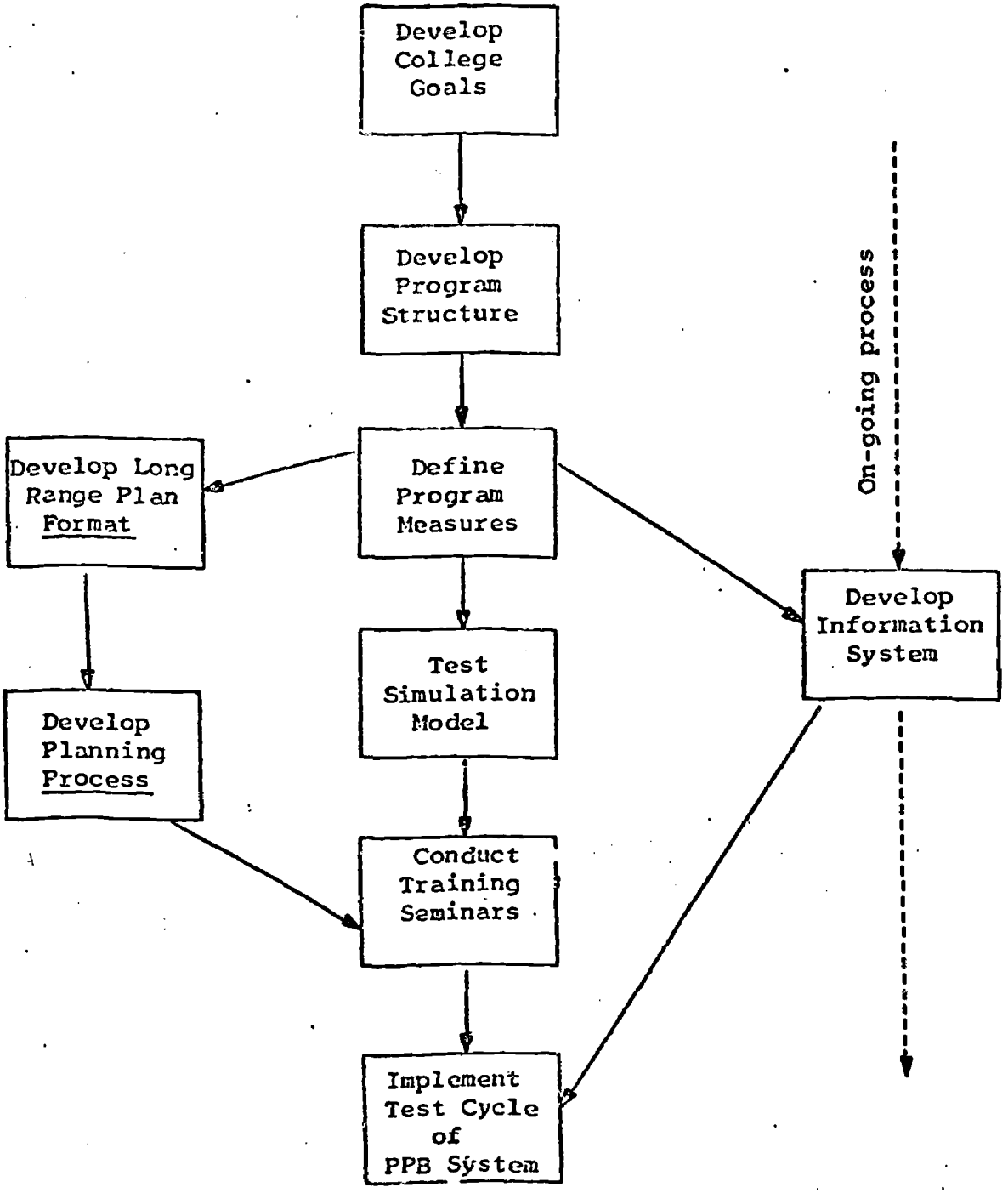
EVALUATION

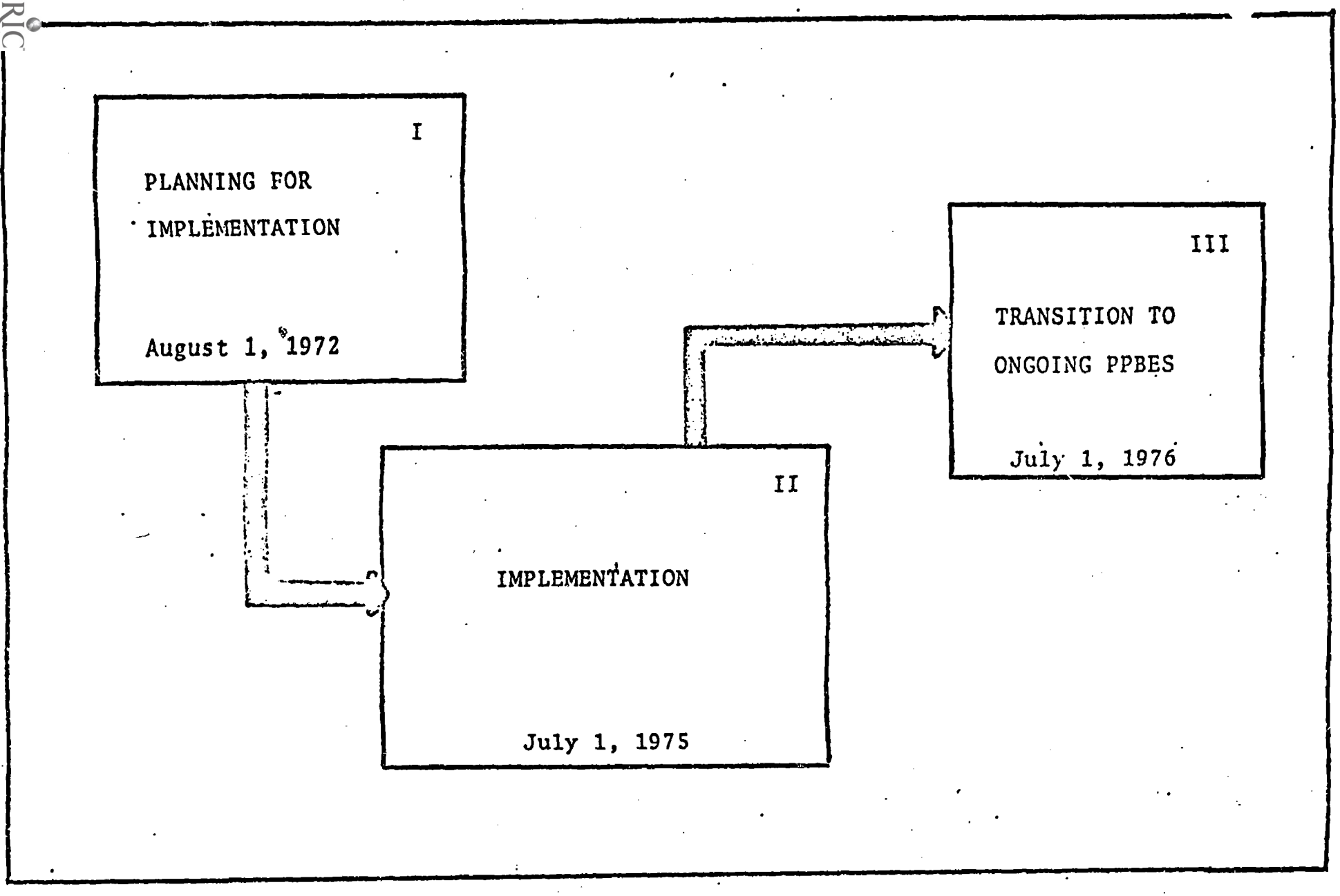
1. Define the scope of evaluation.
2. Relate outputs to objectives.
3. Evaluate progress, outputs, and effectiveness and efficiency.



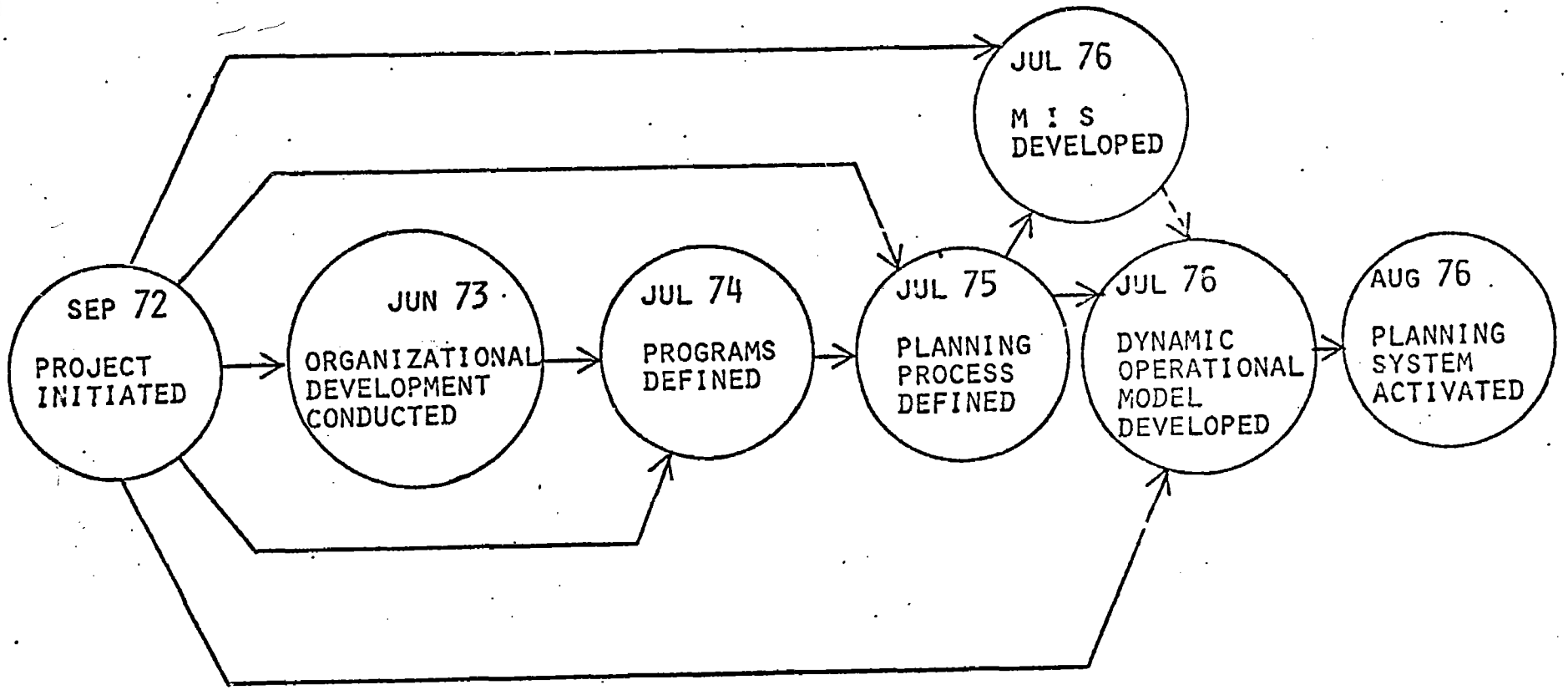
The implementation phase viewed as a system.

IMPLEMENTATION PLAN



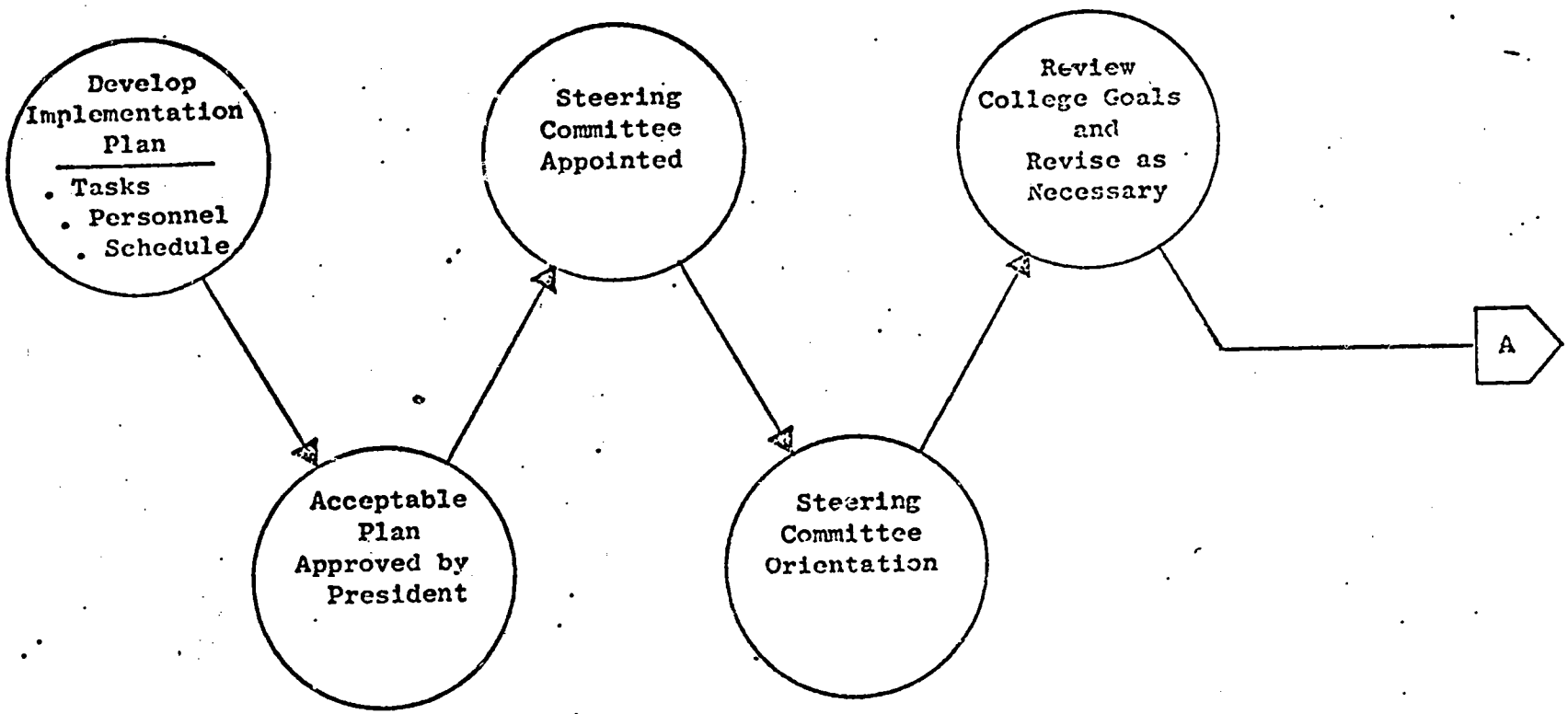


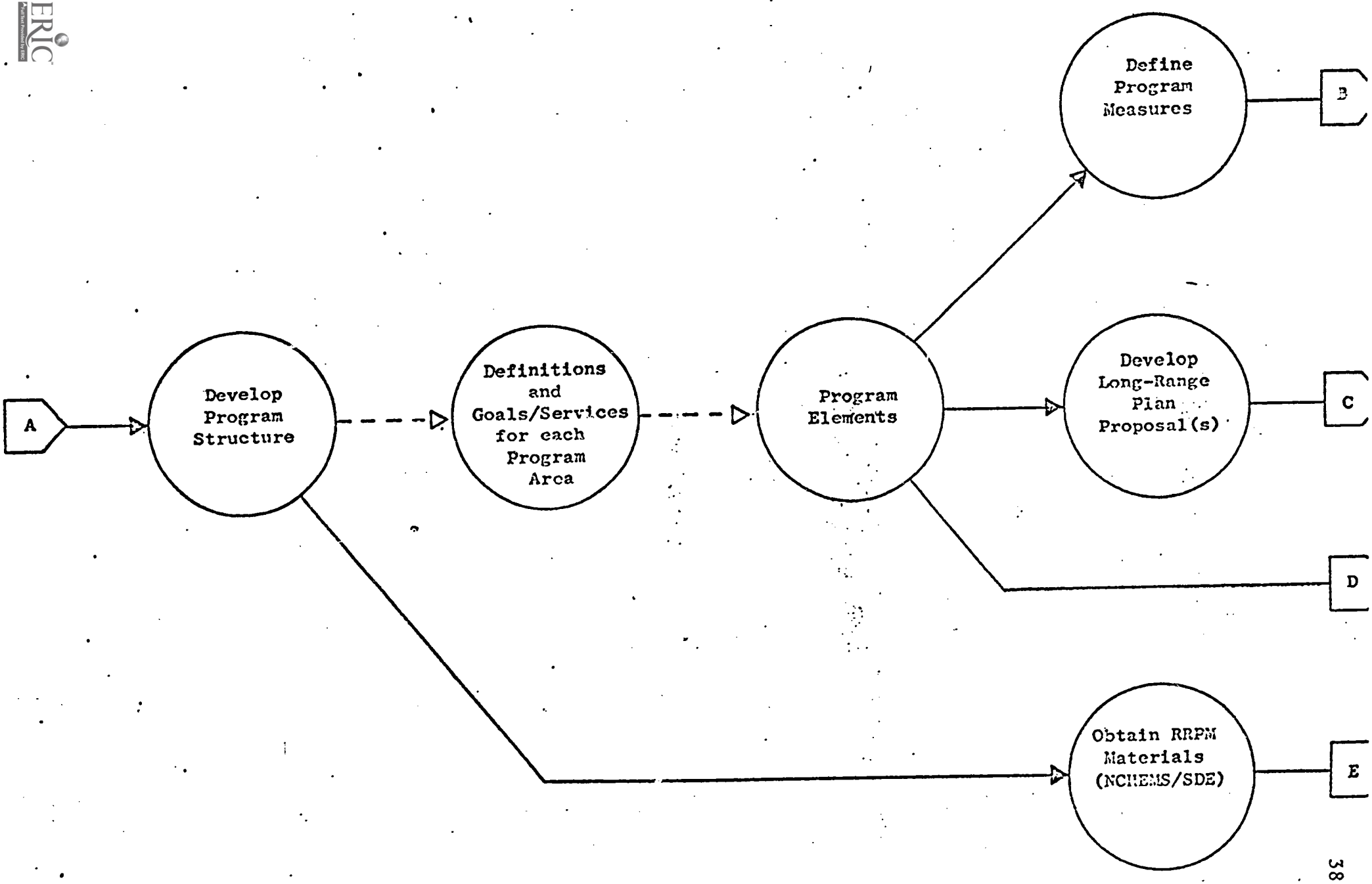
The three phases of PPBS operation including expected completion dates.

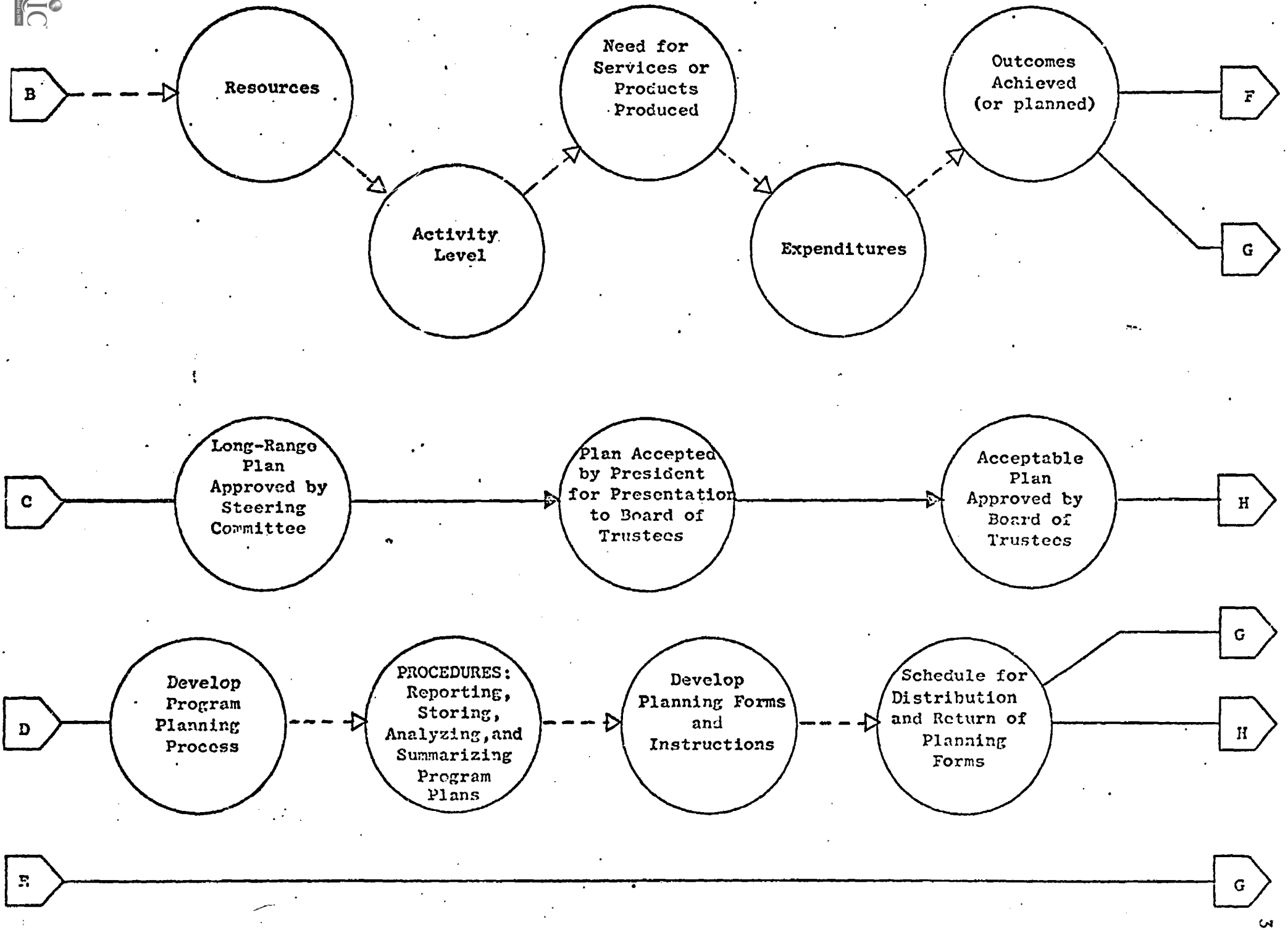


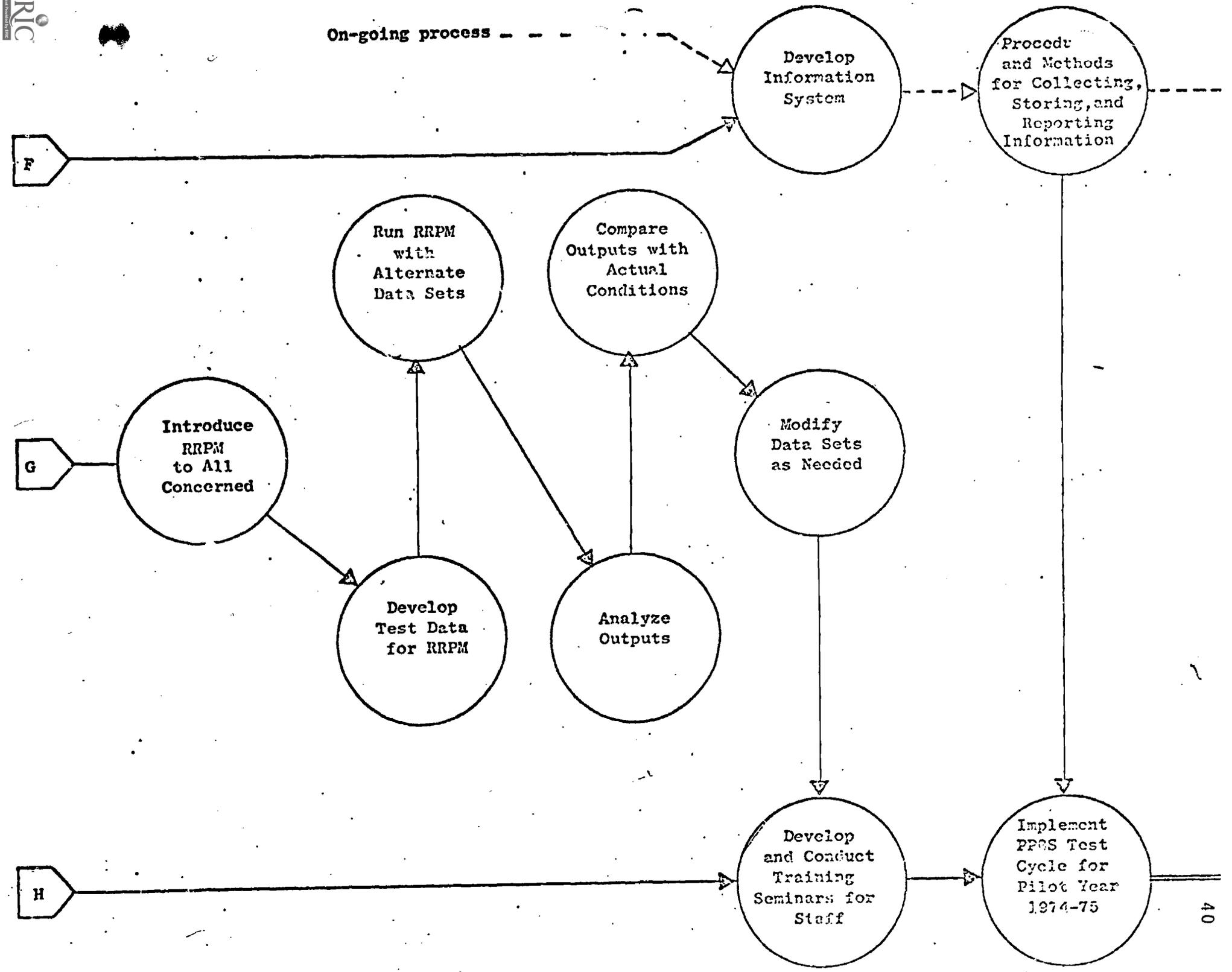
DATES SHOWN ARE EXPECTED DATES OF COMPLETION

PERT Chart of Implementation


Develop Implementation Plan
• Tasks
• Personnel
• Schedule
Steering Committee Appointed
Review College Goals and Revise as Necessary
A
Acceptable Plan Approved by President
Steering Committee Orientation


A
Develop Program Structure
Definitions and Goals/Services for each Program Area
Program Elements
Define Program Measures
B
Develop Long-Range Plan Proposal(s)
C
D
Obtain RRPM Materials (NCHEMS/SDE)
E


B
Resources
Activity Level
Need for Services or Products Produced
Expenditures
Outcomes Achieved (or planned)
F
G
C
Long-Range Plan Approved by Steering Committee
Plan Accepted by President for Presentation to Board of Trustees
Acceptable Plan Approved by Board of Trustees
H
D
Develop Program Planning Process
PROCEDURES: Reporting, Storing, Analyzing, and Summarizing Program Plans
Develop Planning Forms and Instructions
Schedule for Distribution and Return of Planning Forms
G
H
E
G


On-going process
Develop Information System
Procedu and Methods for Collecting, Storing, and Reporting Information
F
Run RRPM with Alternate Data Sets
Compare Outputs with Actual Conditions
Introduce RRPM to All Concerned
G
Modify Data Sets as Needed
Develop Test Data for RRPM
Analyze Outputs
Develop and Conduct Training Seminars for Staff
Implement PPBS Test Cycle for Pilot Year 1974-75
H

PERSONALIZED INSTRUCTIONAL UNIT I.

INSTRUCTOR'S NAME:	Zdzislaw P. Wesolowski
INSTITUTION:	Polk Community College
COURSE TITLE:	Principles of Planning, Programming, Budgeting and Evaluation Systems.
TOPIC:	Programming
TARGET GROUP:	Community College Staff
APPROXIMATE WORKING TIME	1 class period

RATIONALE

The main concept in this phase is to think in terms of alternative ways for achieving stated objectives. Alternative ways to accomplish a stated objective utilize a method of cost-analysis. The basic need in this approach is the use of a rational systematic investigation of the estimated effectiveness and estimated costs associated with various alternatives under consideration.

In programming we should generate a series of alternative activities and a selection of a specific activity or group of activities designed to bring about the achievement of a desired objective. Programming process includes multi-year planning, program review and the analysis of alternatives. The college program structure in instruction and support activities becomes a framework for the entire system. Specific determination of manpower requirements, material and facilities necessary for the cluster of activities which constitute college programs are examined in this process.

The most important point to remember is that programming is the selection of courses of action which are most effective and efficient means of attaining desired results. In this process we must define what activities must be carried out to accomplish objectives, how should these activities be organized, what resources will be needed to conduct these desired activities and finally, what constraints may impede the accomplishment of these objectives?

Programming bridges the gap between planning and the next Unit, Budgeting, in the following manner:

1. It describes the activities necessary to accomplish desired results.
2. Relates outputs or products to resource utilization.
3. Defines alternatives in terms of their cost, feasibility, and effectiveness.
4. Anticipation of the greatest benefit from resources expenditure.
5. Defines specifically academic and support programs.

You should remember that programming is the translation of the needs of college programs into specific resource requirements on an immediate and long-range basis. In Florida we will try to plan our academic programs on a five-year basis.

OBJECTIVES

After you complete this unit you should be able to:

1. Define possible alternative courses of action for your area of responsibility.
2. Define your own position of responsibility in terms of your program objectives.

3. Develop an interest and an appreciation for systems analysis in the solution of educational problems.
4. Analyze the cost of alternative objectives in terms of required resources and their applicability.
5. Use analytical tools such as simulation and modeling.
6. Develop skills which will help to answer WHAT IF problems.
7. Specify your own immediate short-term objectives.

LEARNING ACTIVITIES

1. Read Haggart pages 20 to 48.
2. Read Sabine pages 101 to 164.
3. Read Florida PPBES Procedures Manual pages 1 to 16.
4. Read Flroida PPBES Design Criteria pages 1 to 50.
5. Listen to cassette tape #3 Introduction to PPBES, University of Michigan.
6. Listen to cassette tape #1 by Stevens.
7. Listen to cassette tape #1 by Odom.
8. Attend class lecture for Unit II
   a. Transparency #1 to #15.

After you examine the above information you should be able to see how alternatives are generated relating to college goals and objectives, how operational plans are developed and how activities are clustered to college objectives. Do not be discouraged by the amount of independent reading which is required. Progress at your own pace, go over the material listed twice if you did not get it the first time. See the instructor for clarification of points that are not clear to you.

UNIT EVALUATION

INSTRUCTOR: _____

DATE: _____

I. Session Appraisal

A. Please rate your degree of INTEREST in the subject of today's session.

LOW | | | | | | HIGH (check one)

B. Please rate the VALUE RECEIVED from the session.

LOW | | | | | | HIGH (check one)

C. What were the most effective segments of the unit? Why?

_____

_____

D. What were the least effective segments? Why?

_____

_____

E. What suggestions do you have?

_____

_____

II. Instructor Appraisal - Rate the instructor using the designation indicated below for the values of your rating. 5 - Excellent, 4 - Good, 3 - Satisfactory, 2 - Acceptable, 1 - Unsatisfactory.

1. Organization & Topic Coverage
   a. Was presentation well organized? _____
   b. Was discussion encouraged & guided? _____
   c. Was topic covered adequately? _____
   d. Was topic relevant to your job requirement? _____
   e. Were stated unit objectives met? _____

2. Presentation
   a. Was explanation clear? _____
   b. Was instructor prepared? _____
   c. Does instructor stimulate interest? _____
   d. Was best use made of visual aids? _____

III. What questions do you have as a result of today's session?

_____

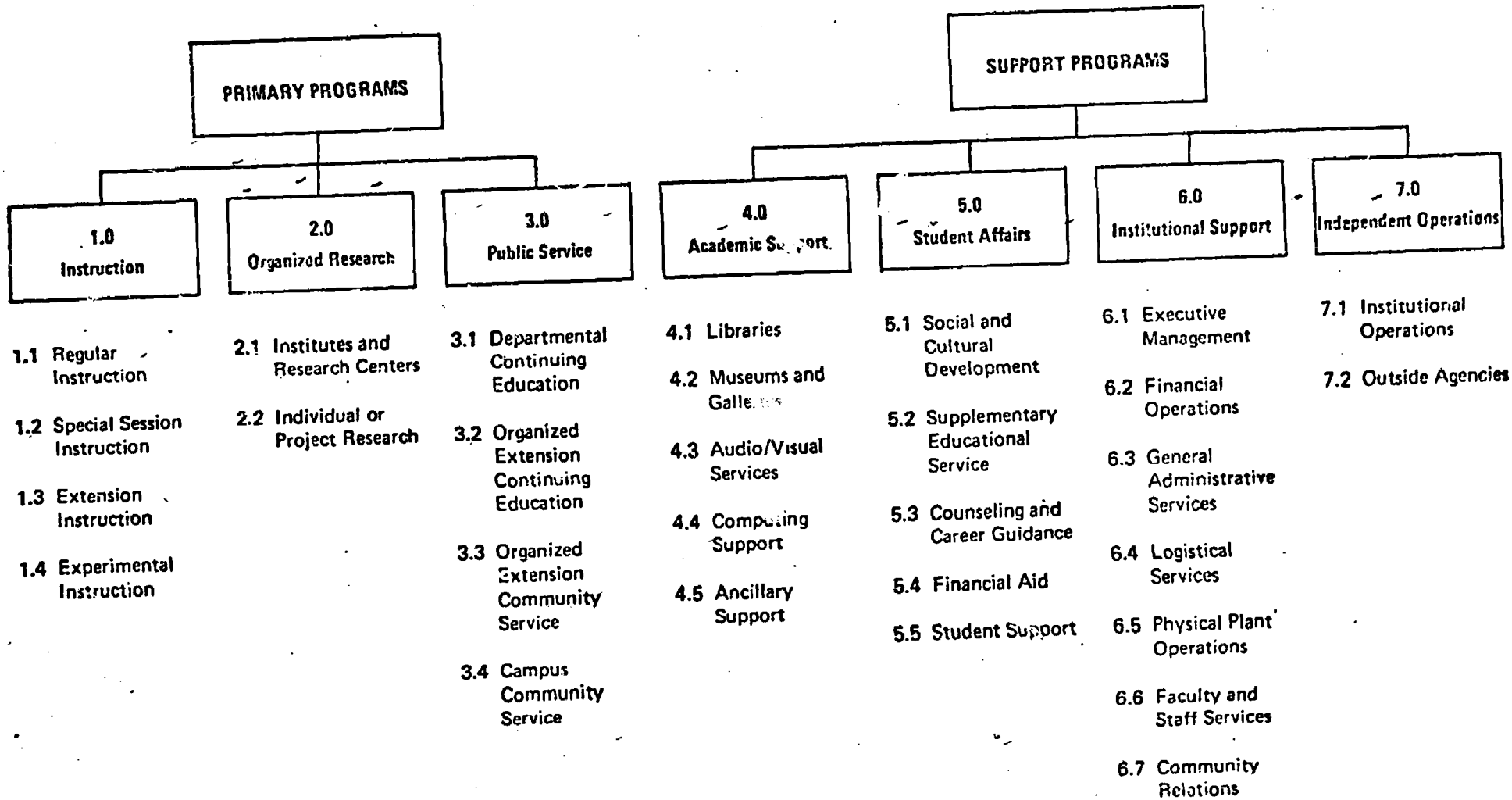
_____

_____

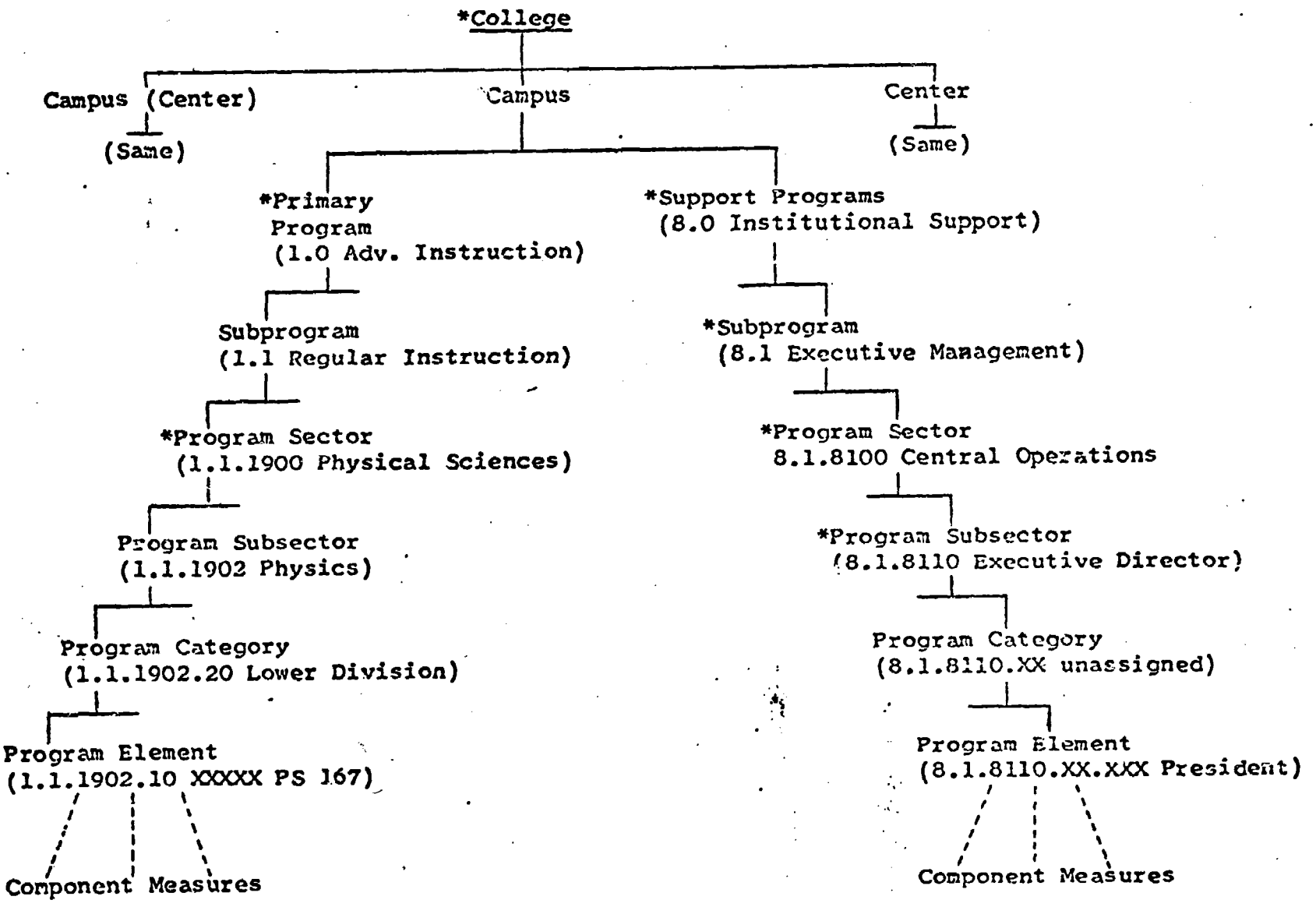
PURPOSES OF PROGRAM STRUCTURE

- ARRANGE PROGRAM ACTIVITIES INTO LOGICAL, MANAGEABLE GROUPS
- ASSESS COMPLETENESS OF PROGRAM ACTIVITIES
- ANALYZE THE INTERRELATIONSHIPS AMONG ACTIVITIES AND IDENTIFY COORDINATION REQUIREMENTS
- ASSIGN RESPONSIBILITY FOR MANAGING ACTIVITIES
- ANALYZE THE DISTRIBUTION OF RESOURCES
- PROVIDES A FRAMEWORK FOR DECISIONMAKING

POSSIBLE COLLEGE PROGRAM STRUCTURE FOLLOWING NCHEMS RECOMMENDED CLASSIFICATION STRUCTURE

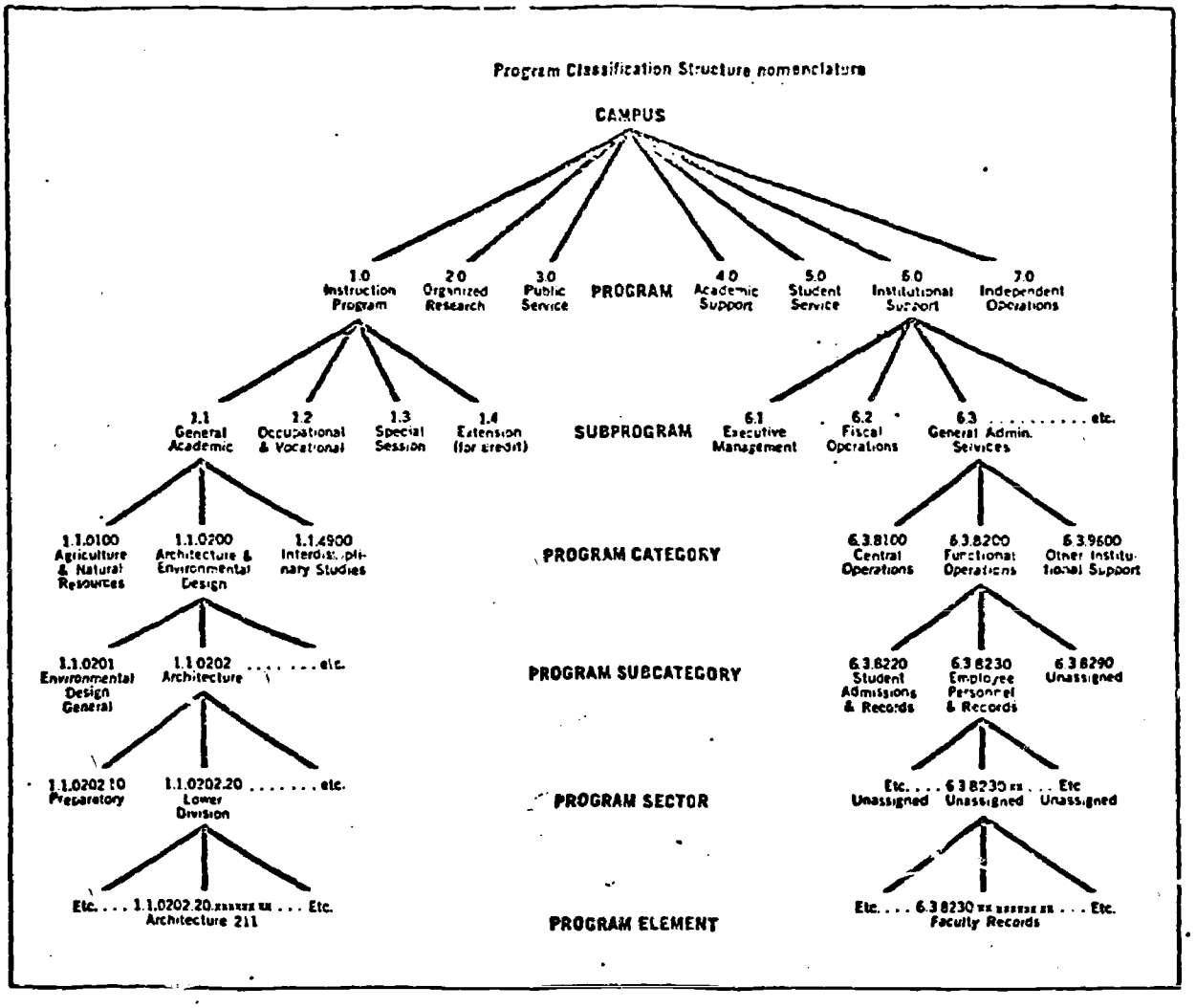


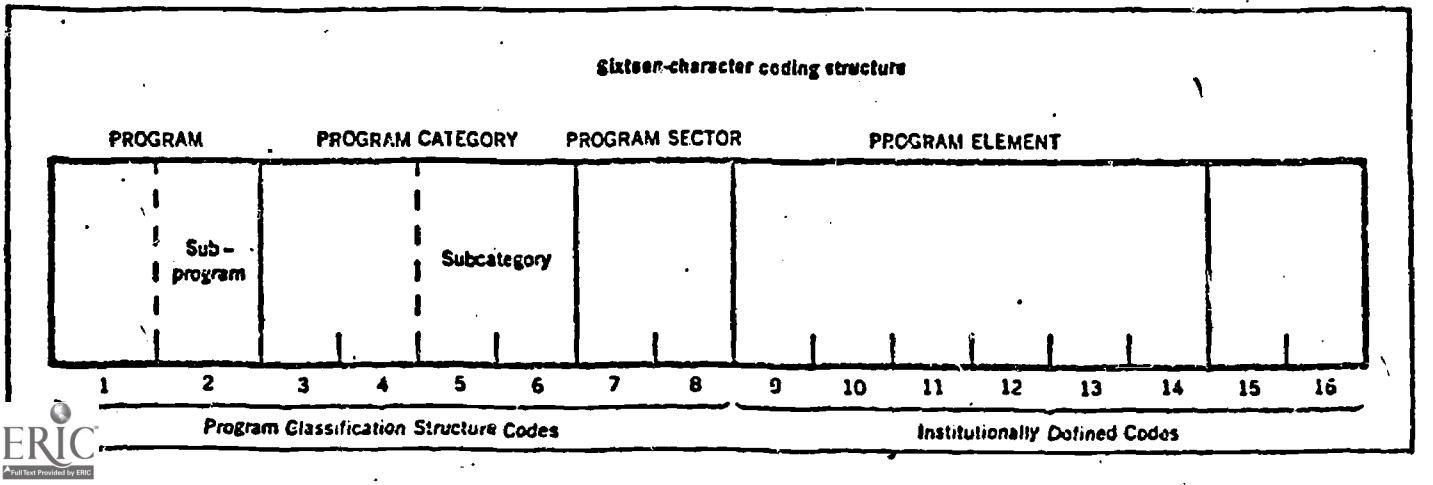
PROGRAM STRUCTURE NOMENCLATURE



*Levels which should be contained in the planning and budgeting document.

PROGRAM CLASSIFICATION STRUCTURE MODEL





PROGRAM CLASSIFICATION STRUCTURE

1. INSTRUCTIONAL PROGRAMS

Subprograms	Categories	
1.1. Advanced and Professional Instruction	Natural Science	1.1.1.
	Physical Science	1.1.2.
	Social Science	1.1.3.
	Business	1.1.4.
	Letters	1.1.5.
	Humanities	1.1.6.
	Interdisciplinary (Discipline only)	1.1.7.
	General Degree (Transfer) (Curriculum only)	1.1.8.
	General Degree (Non-Transfer) (Curriculum only)	1.1.9.
1.2. Occupational Instruction	Agriculture	1.2.1.
	Distributive	1.2.2.
	Health	1.2.3.
	Home Economics	1.2.4.
	Office	1.2.5.
	Trade & Industrial	1.2.6.
	Technical	1.2.7.
1.3. Developmental	Compensatory Education	1.3.1.
	Adult Elementary and Secondary	1.3.2.
1.4. Community Instructional Service	Citizenship	1.4.1.
	Non-vocational courses	1.4.2.
1.5. Other Curriculum Categories	Retraining & Occupational Upgrading	1.5.1.
	Fulfillment of Other Personal Objectives	1.5.2.

SUPPORT PROGRAMS

programs	Sub-programs	
3. Public Service	Community Service	3.10.
4. Academic Support	Libraries	4.10.
	Museums and Galleries	4.20.
	Audio-Visual Services	4.30.
	Computing Support (Instructional)	4.40.
	Ancillary Support	4.50.
	Academic Administration	4.60.
	Course and Curriculum Development	4.70.
	Professional Personnel Development	4.80.
5. Student Services	Social & Cultural Development	5.10.
	Organized Athletics	5.20.
	Counseling and Career Guidance	5.30.
	Financial Aid	5.40.
	Food Service	5.50.
	Health Service	5.60.
	Retail Services	5.70.
	Services for Special Students	5.80.
	Student Service Administration	5.90.
6. Institutional Support	Executive Management	6.10.
	Fiscal Operations	6.20.
	General Administrative Services	6.30.
	Logistical Services	6.40.
	Physical Plant Operations	6.50.
	Faculty and Staff Services	6.60.
	Community Relations	6.70.

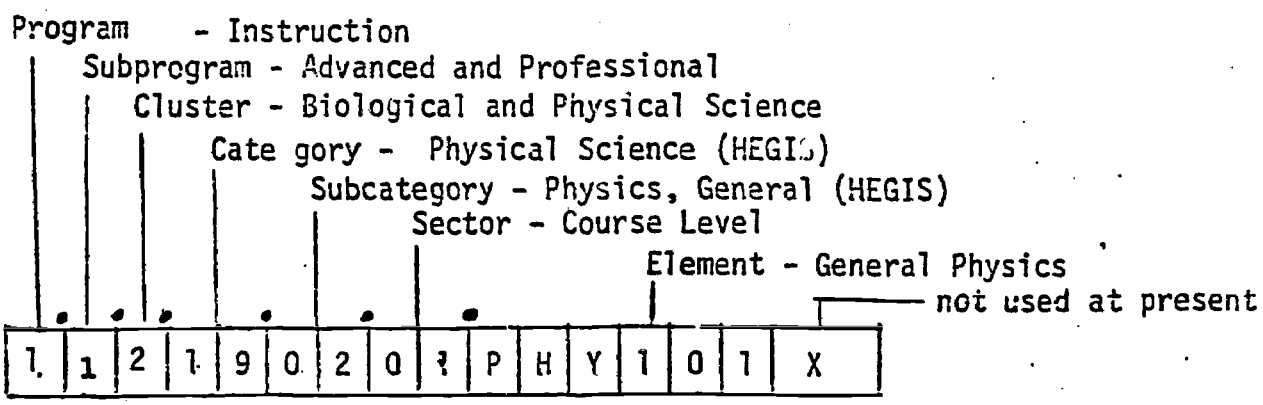
PROGRAM CLASSIFICATION NUMERICAL CODING STRUCTURE

(WICHE & HEGIS 16 Digit Codes)

EXAMPLE - - INSTRUCTION, ADVANCED AND PROFESSIONAL (College Transfer)

Digit			CODE
1	Program -	Instruction	1.
2	Subprogram -	Advanced and Professional	1.1.
3	Cluster -	Biological & Physical Science	1.1.2.
4	Category -	Physical Science (HEGIS)	1.1.2.1.
5,6,7	Subcategory -	Physics, General (HEGIS)	1.1.2.1.902.
8,9	Sector -	Course Level (Lower or Upper)	1.1.2.1.902.01.
10-15	Element -	General Physics (Academic Course Number)	1.1.2.1.902.01.PHY101.
16	Not Used		

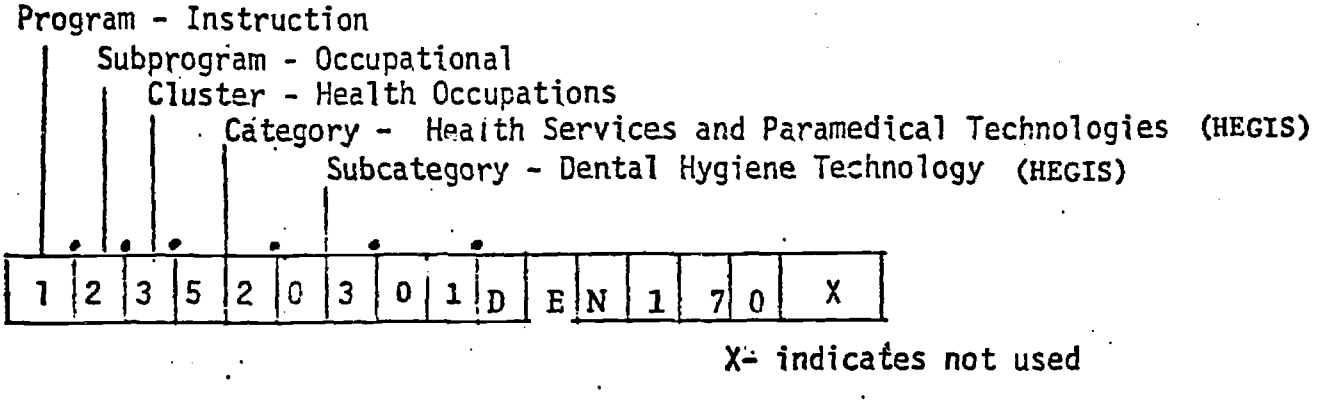
Example 1 A Physics Course



EXAMPLE - - OCCUPATIONAL AND CAREER EDUCATIONS CODES

Digit			CODE
1	Program -	Instruction	1.
2	Subprogram -	Occupational	1.2.
3	Cluster -	Health Occupations	1.2.3.
4	Category -	Health & Paramedical Technologies (HEGIS)	1.2.3.5.
5,6,7	Subcategory -	Dental Hygiene Technology (HEGIS)	1.2.3.5.203.
8,9	Sector -	Course Level (Lower or Upper)	1.2.3.5.203.01.
10-15	Element -	Academic Course Number Fundamentals of Dentistry	1.2.3.5.203.01.DEN170.
16	Not Used		

Example 2 A Dental Hygiene Curricular Program

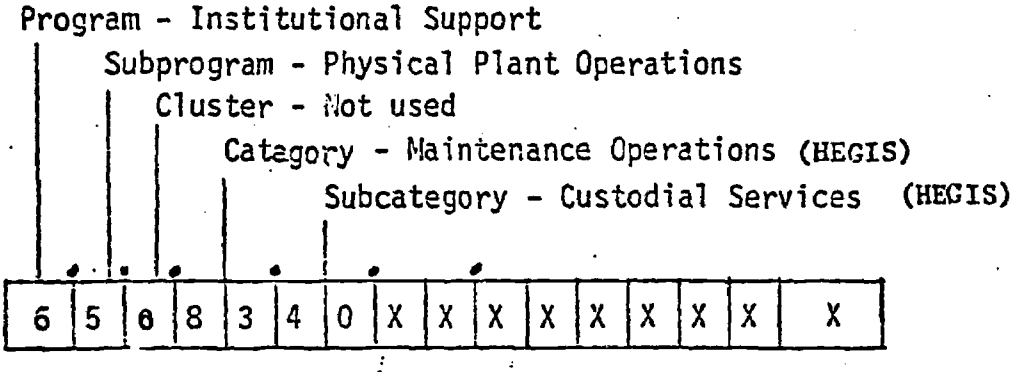


ORGANIZATIONAL PROGRAM CLASSIFICATION STRUCTURE CODES

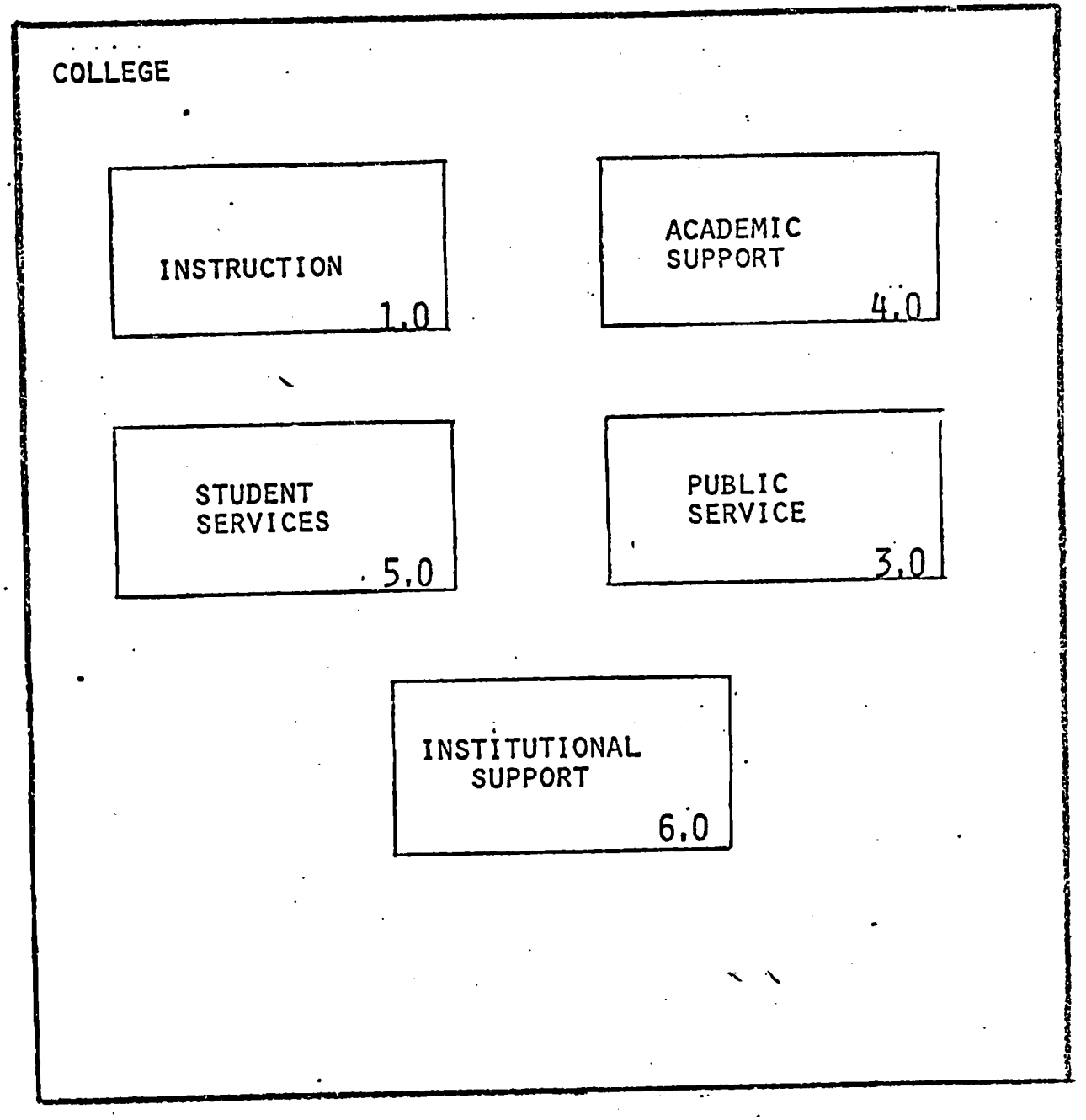
EXAMPLE - - INSTRUCTIONAL SUPPORT PROGRAMS

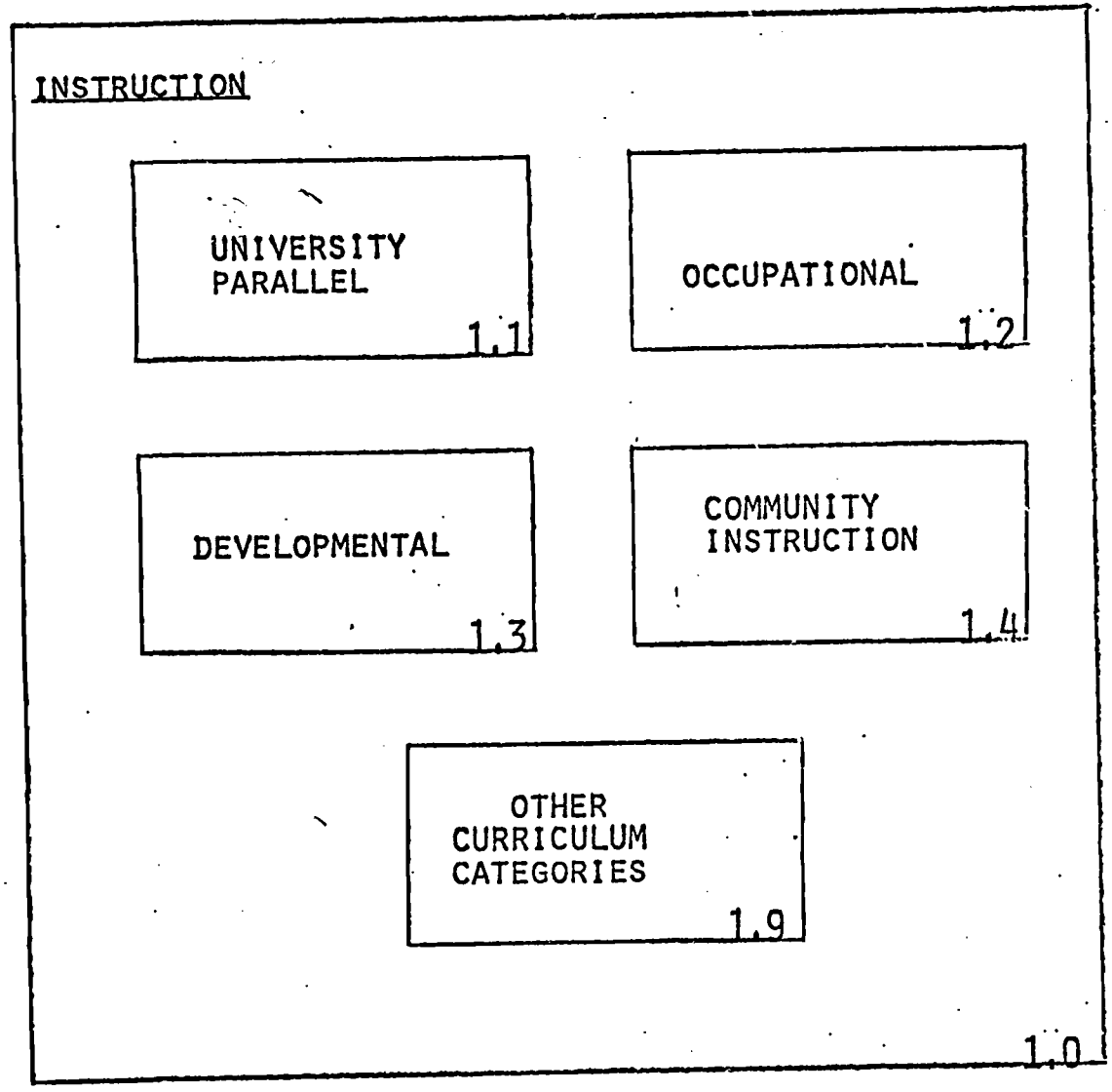
Digit			CODE
1.	Program -	Institutional Support	6.
2	Subprogram -	Physical Plant Operations	6.5.
3	Cluster -	Not Used	6.50.
4,5	Category -	Maintenance Operations (HEGIS)	6.50.83.
6,7	Subcategory -	Custodial Services (HEGIS)	6.50.83.40.
8-16	Not Used		

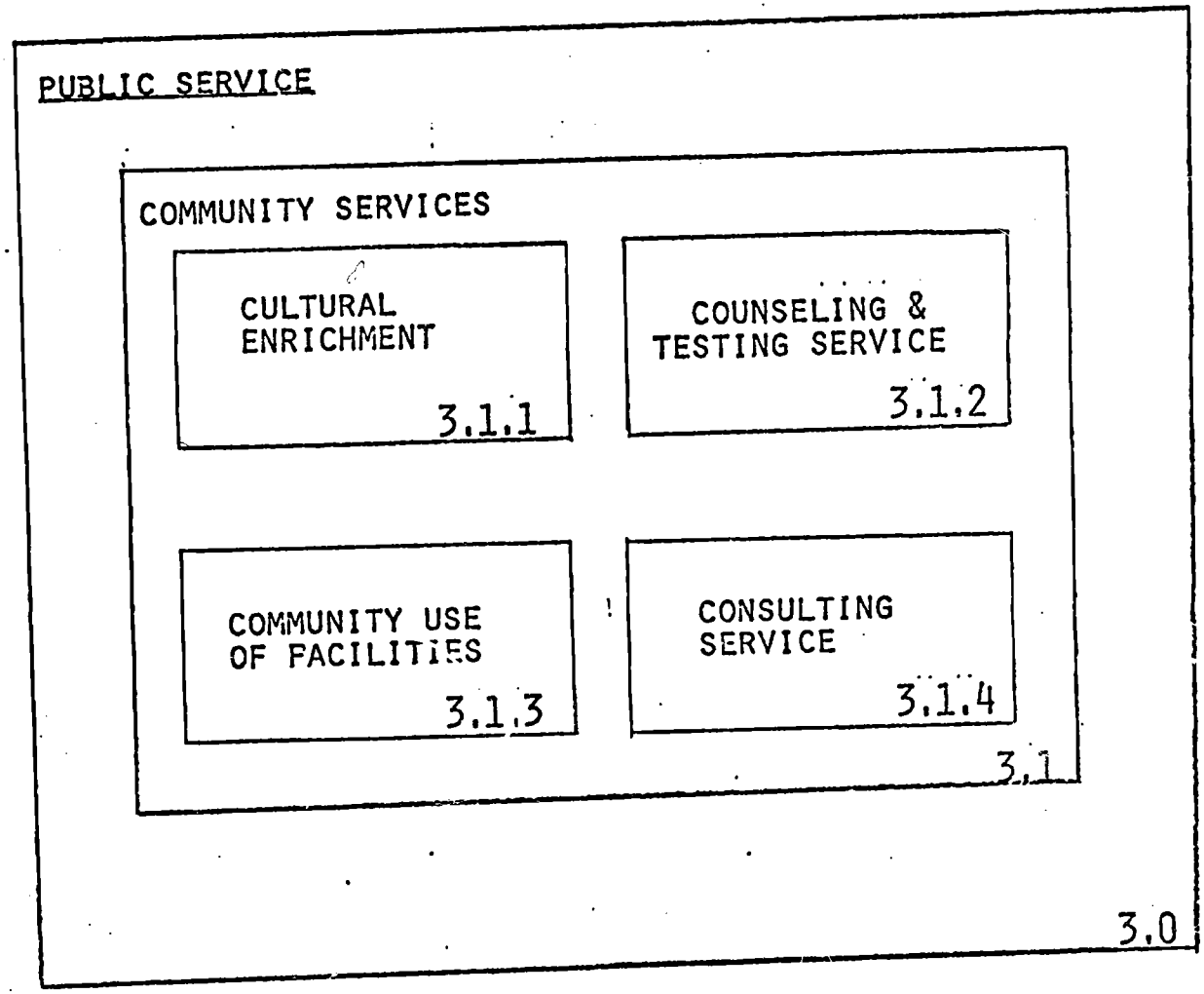
Example 3 A Support Program - Custodial Services

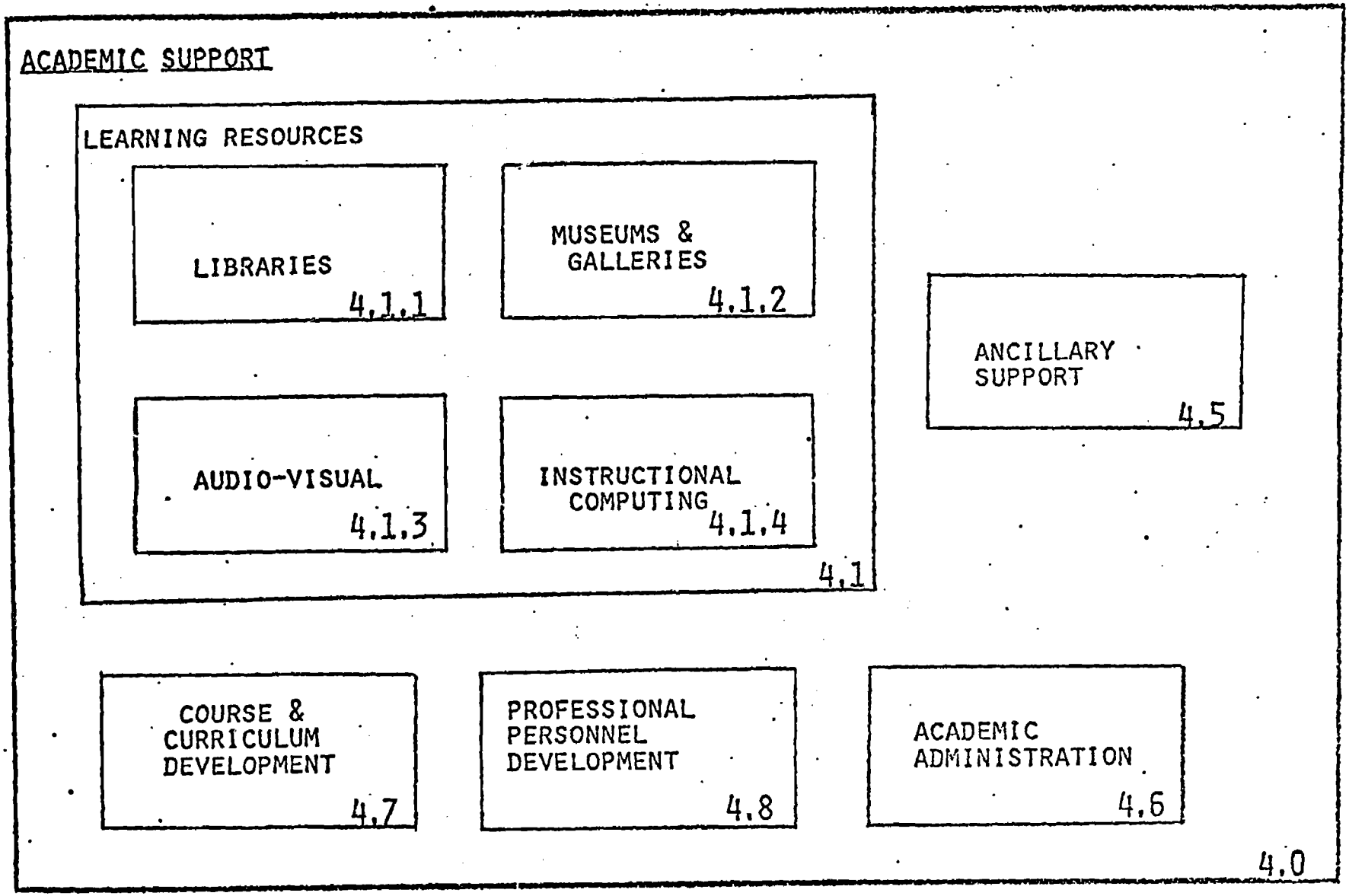


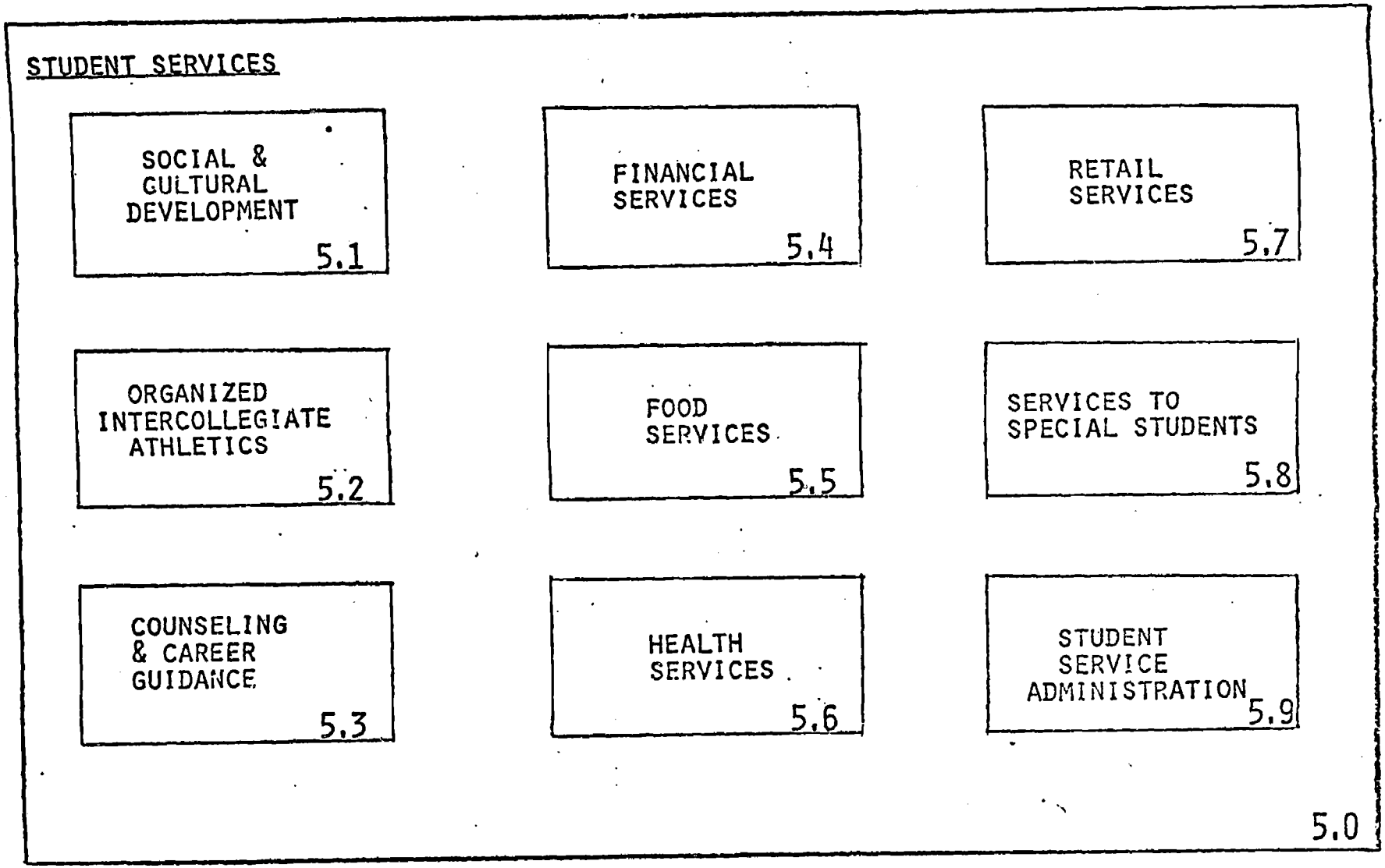
PROGRAM CLASSIFICATION STRUCTURE




INSTRUCTION
UNIVERSITY PARALLEL
1.1
OCCUPATIONAL
1.2
DEVELOPMENTAL
1.3
COMMUNITY INSTRUCTION
1.4
OTHER CURRICULUM CATEGORIES
1.9
1.0


PUBLIC SERVICE
COMMUNITY SERVICES
CULTURAL ENRICHMENT
3.1.1
COUNSELING & TESTING SERVICE
3.1.2
COMMUNITY USE OF FACILITIES
3.1.3
CONSULTING SERVICE
3.1.4
3.1
3.0


ACADEMIC SUPPORT
LEARNING RESOURCES
LIBRARIES
4.1.1
MUSEUMS & GALLERIES
4.1.2
AUDIO-VISUAL
4.1.3
INSTRUCTIONAL COMPUTING
4.1.4
4.1
ANCILLARY SUPPORT
4.5
COURSE & CURRICULUM DEVELOPMENT
4.7
PROFESSIONAL PERSONNEL DEVELOPMENT
4.8
ACADEMIC ADMINISTRATION
4.6
4.0


STUDENT SERVICES
SOCIAL & GULTURAL DEVELOPMENT 5.1
FINANCIAL SERVICES 5.4
RETAIL SERVICES 5.7
ORGANIZED INTERCOLLEGIATE ATHLETICS 5.2
FOOD SERVICES 5.5
SERVICES TO SPECIAL STUDENTS 5.8
COUNSELING & CAREER GUIDANCE 5.3
HEALTH SERVICES 5.6
STUDENT SERVICE ADMINISTRATION 5.9
5.0

INSTITUTIONAL SUPPORT

- EXECUTIVE MANAGEMENT 6.1
- FISCAL MANAGEMENT 6.2
- PHYSICAL PLANT 6.5
- FACULTY & STAFF SERVICES 6.6
- COMMUNITY RELATIONS 6.7

GENERAL ADMIN. SERVICES

- ADMINISTRATIVE COMPUTING 6.3.1
- SPACE MANAGEMENT 6.3.2
- ADMISSIONS & RECORDS 6.3.3
- PERSONNEL & EMPLOYEE RELATIONS 6.3.4

6.3

LOGISTICAL SERVICES

- ENVIRONMENTAL PROTECTION 6.4.1
- COMMUNICATION SERVICE 6.4.2
- TRANSPORTATION SERVICE 6.4.3
- PURCHASING & MATERIEL STORAGE 6.4.4

6.4

PERSONALIZED INSTRUCTIONAL UNIT III

INSTRUCTOR'S NAME:	Zdzislaw P. Wesolowski
INSTITUTION:	Polk Community College
COURSE TITLE:	Principles of Planning, Programming, Budgeting and Evaluation Systems.
TOPIC:	Budgeting
TARGET GROUP:	Community College Staff
APPROXIMATE WORKING TIME:	1 class period

RATIONALE

Budgeting is a process of allocating financial resources to the activities selected according to established college priorities. In order that we perform the necessary activities to reach our objectives, we must determine what resources will be required to reach our goals. The balancing of estimated resources available with resources required for various programs when such requirements exceed the available resources, involves allocations by established priorities in the budgeting process. By making specific statements about the required resources we are better able to achieve specified quantity and quality of desired output. Once a determination is made about the kinds of resources which are necessary to accomplish college objectives, a matching can be made through a decision-making process with the available resources for each program.

A budgeting process therefore can be considered as a function which takes program decisions and translates them into an implementing plan in a budget context, and presents the appropriate program and

financial data for management decision making. A program budget attaches a dollar figure to the outputs or programs. It is a process of proposing revenues which are to be expended in predetermined ways within a specified period of time. So budgeting is simply the formulation of an annual financial plan making explicit composition and extent of all program elements dealt with in the programming phase as shown in the last UNIT.

Program budgeting as a system involves the use of budgetary techniques that facilitate explicit consideration of the pursuit of policy objectives in terms of their economic costs, both at the present time and in the future. The task of making the necessary compromises among various program objectives is the major function of the PPBES system. To make these compromises, it is necessary that various college activities be expressed in a common denominator--the dollar figure.

As you can see that the purpose of the budgeting process is to make a rational allocation of resources to desired college programs. Educational budgeting is a financial expression of the objectives and activities of an educational system. Program budgeting relates to the output orientated programs or activities of an organization to specific resources that are stated in dollar terms and projected for a number of years in the future.

OBJECTIVES

Upon completion of this Unit you will be able to:

1. Translate college programs into fiscal and nonfiscal requirements.

2. Classify programs and their expenditures.
3. Estimate costs of your program for next year and the future.
4. Understand the college income or funding allocation.
5. Identify constraints imposed on expenditure of various funds.
6. Analyze how income is to be allocated to various programs and college activities.
7. Relate your own departments budgetary needs to that of the whole college.
8. Formulate your own department's budget for next year and future years based upon your objectives.

LEARNING ACTIVITIES

1. Read Haggart pages 49 to 101.
2. Read Florida PPBES Procedures Manual pages 4.3.01 to 4.4.04.
3. Read Florida PPBES Design Criteria pages 51 to 71.
4. Listen to cassette tape #4, Introduction to PPBES, University of Michigan.
5. Listen to cassette tape #2 by Odom.
6. Attend class lecture for Unit III.
7. View Transparency #1 to #14.

UNIT EVALUATION

INSTRUCTOR: _____

DATE: _____

I. Session Appraisal

A. Please rate your degree of INTEREST in the subject of today's session.

LOW | | | | | HIGH (check one)

B. Please rate the VALUE RECEIVED from the session.

LOW | | | | | HIGH (check one)

C. What were the most effective segments of the unit? Why?

_____

_____

D. What were the least effective segments? Why?

_____

_____

E. What suggestions do you have?

_____

_____

II. Instructor Appraisal - Rate the instructor using the designation indicated below for the values of your rating. 5 - Excellent, 4 - Good, 3 - Satisfactory, 2 - Acceptable, 1 - Unsatisfactory.

1. Organization & Topic Coverage
   a. Was presentation well organized? _____
   b. Was discussion encouraged & guided? _____
   c. Was topic covered adequately? _____
   d. Was topic relevant to your job requirement? _____
   e. Were stated unit objectives met? _____

2. Presentation
   a. Was explanation clear? _____
   b. Was instructor prepared? _____
   c. Does instructor stimulate interest? _____
   d. Was best use made of visual aids? _____

III. What questions do you have as a result of today's session?

_____

_____

_____

PLANNING PROGRAMMING BUDGETING SYSTEMS

A RATIONAL PROCESS FOR ALLOCATING RESOURCES AND INCREASED MANAGEMENT EFFECTIVENESS.

GOALS OF A PPBS

1. THE SPECIFICATION OF OBJECTIVES
2. THE EVALUATION OF PROGRAM OUTPUTS AS IT RELATES TO THE OBJECTIVES
3. THE MEASUREMENT OF TOTAL SYSTEMS COST
4. THE MULTI-YEAR PROGRAM PLANNING
5. THE EVALUATION OF ALTERNATIVE PROGRAM DESIGNS
6. THE INTEGRATION OF POLICY AND PROGRAM DECISIONS WITH THE BUDGETING PROCESS

ELEMENTS OF PLANNING PROGRAMMING AND BUDGET

1. STATING GOALS AND OBJECTIVES
2. IDENTIFYING AND MEASURING PROGRAMS
3. DEVELOPING A PROGRAM STRUCTURE
4. CONDUCTING PROGRAM ANALYSIS
5. MANAGING AND BUDGETING BY PROGRAMS

BENEFITS OF PPBS

1. STRENGTHENS THE DECISION PROCESS IN PROGRAM SELECTION
2. PROVIDES INFORMATION DIRECTLY ALIGNED TO COLLEGE NEEDS
3. PROVIDES A FRAMEWORK TO ANALYZE COSTS AND BENEFITS OF ALTERNATIVE PROGRAMS
4. INTEGRATES MULTI-YEAR PLANNING WITH PROGRAM BUDGETING AND FISCAL BUDGETING
5. MEASURES ACTUAL AND PLANNED PERFORMANCE AND EVALUATION
6. PROVIDES A METHOD FOR REVISING GOALS, CHANGING PLANS, OR REALLOCATING RESOURCES

SOME LONG-RANGE GOALS OF PPBES

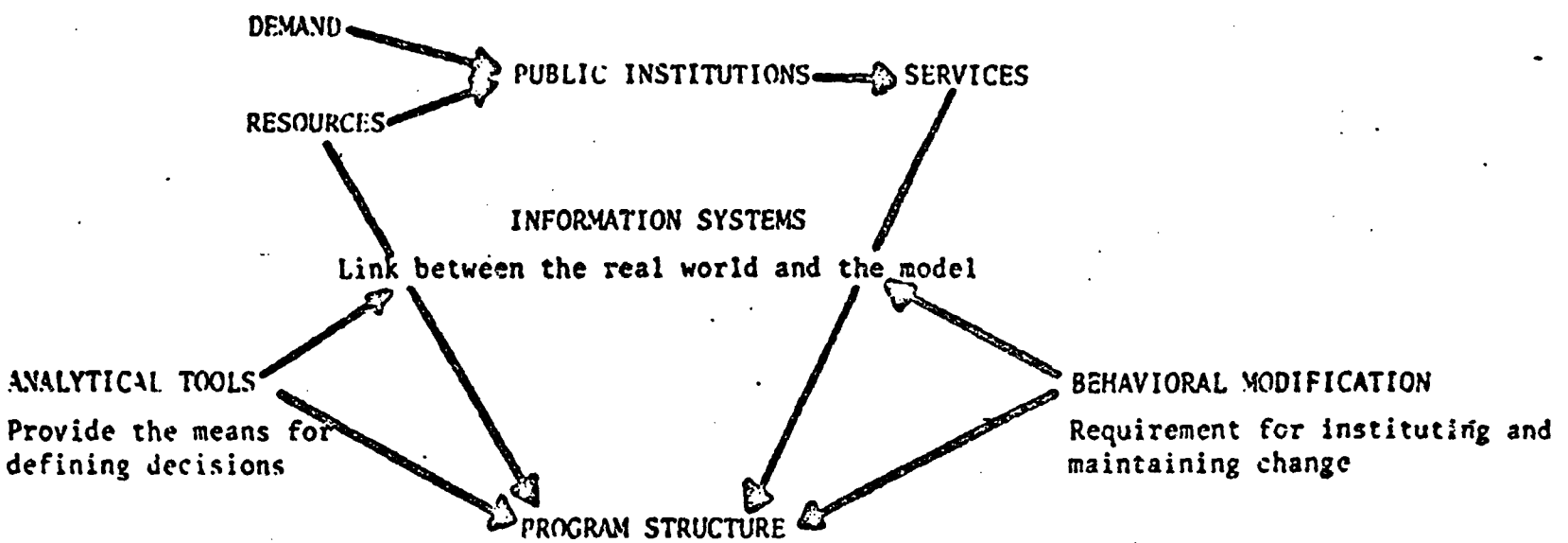
1. To improve the formal interoperative communications network.
2. To provide a management information system that offers a basis for a more valid decision-making process.
3. To differentiate the decision-making process.
4. To install a mechanism for utilizing a problem-solving approach in decision-making.
5. To develop a mechanism that promotes and rewards innovation at all levels of college operation.
6. To promote an operational system that is growing toward the ideal open attitudinal climate.
7. To establish a diagnostic evaluation process which is constructive rather than destructive.
8. To replace political incremental budgeting processes with program (output oriented) budgeting.
9. To provide for a more effective and efficient use of all resources available to the college.
10. To develop the institution/division interface system as a more effective communication link.
11. To establish long-range planning mechanism.

ERIC

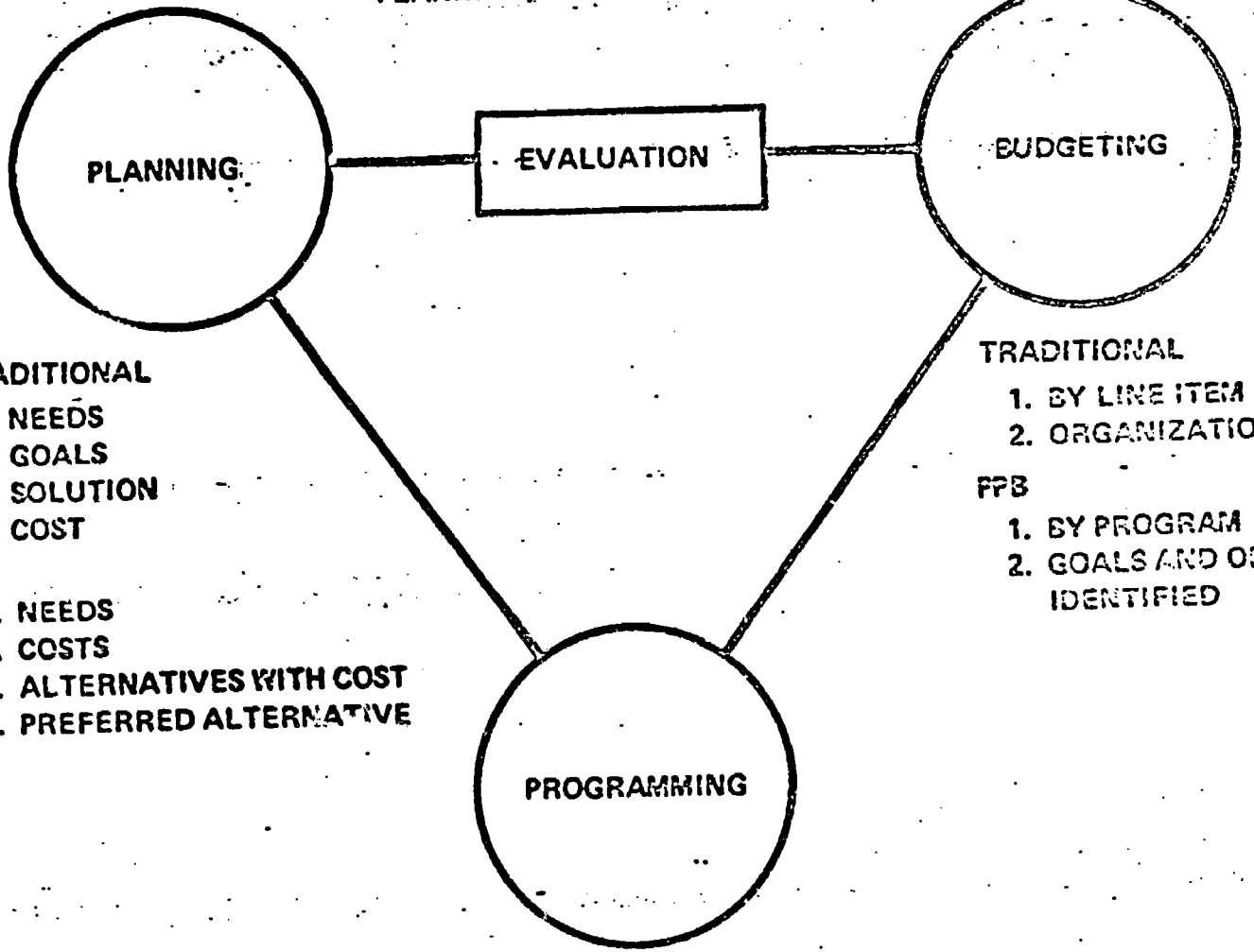
PLANNING PROGRAMMING BUDGETING SYSTEMS

GOALS: A rational process for allocating resources

Increased management effectiveness



COMPARING PPB WITH TRADITIONAL METHOD OF PLANNING, PROGRAM AND BUDGET



TRADITIONAL

- NEEDS
- GOALS
- SOLUTION
- COST

PPB

1. NEEDS
2. COSTS
3. ALTERNATIVES WITH COST
4. PREFERRED ALTERNATIVE

TRADITIONAL

1. BY LINE ITEM
2. ORGANIZATIONAL UNIT

PPB

1. BY PROGRAM
2. GOALS AND OBJECTIVES IDENTIFIED

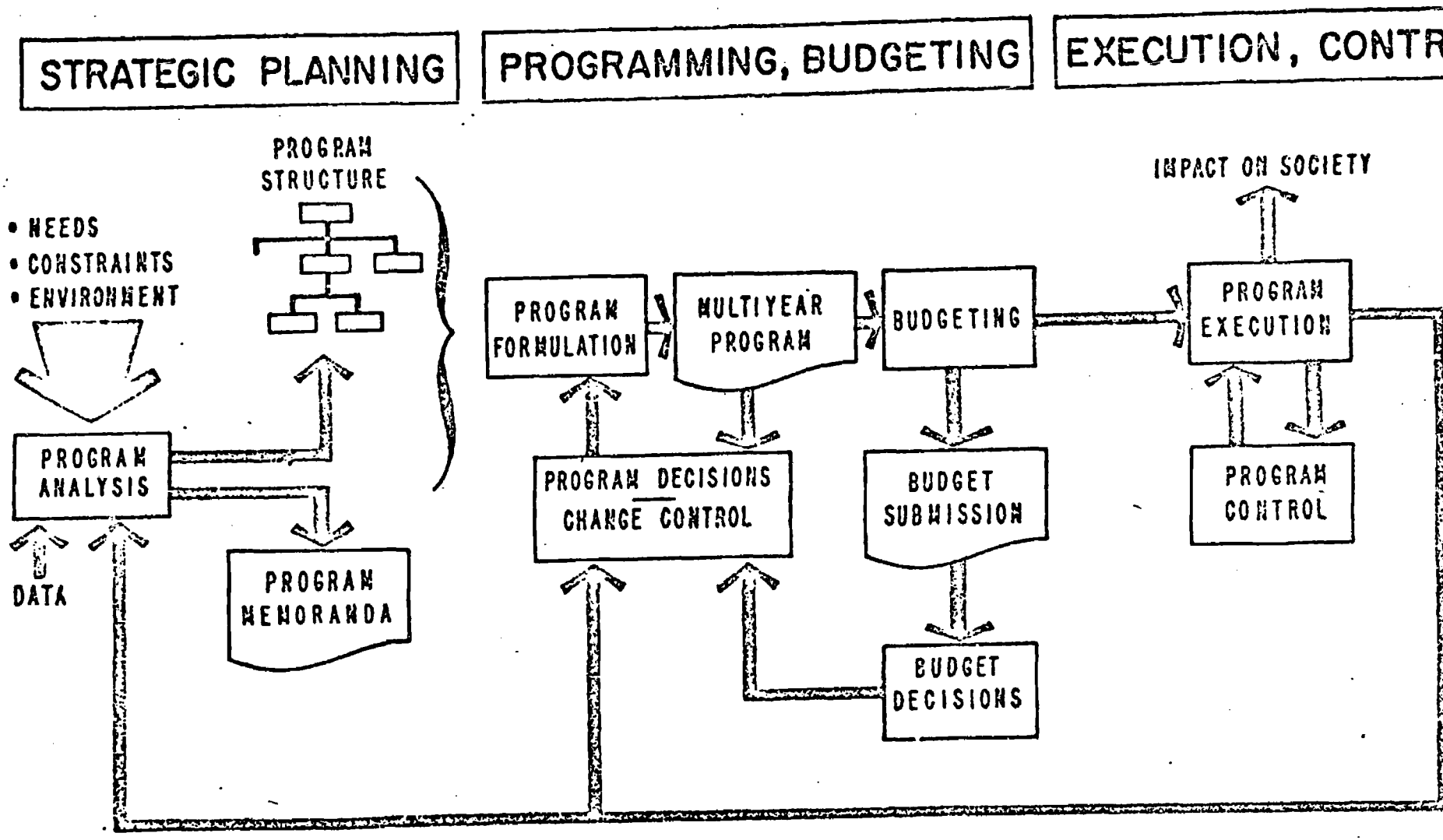
TRADITIONAL

1. YEAR OR LESS
2. BY ORGANIZATIONAL UNIT

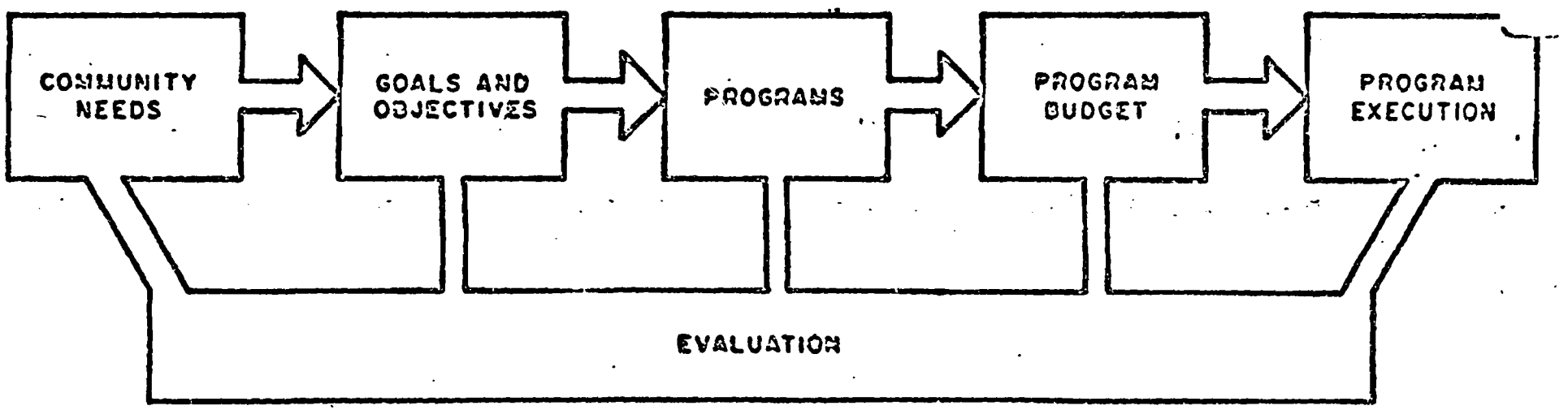
PPB

1. MULTI-YEAR
2. BY PROGRAM

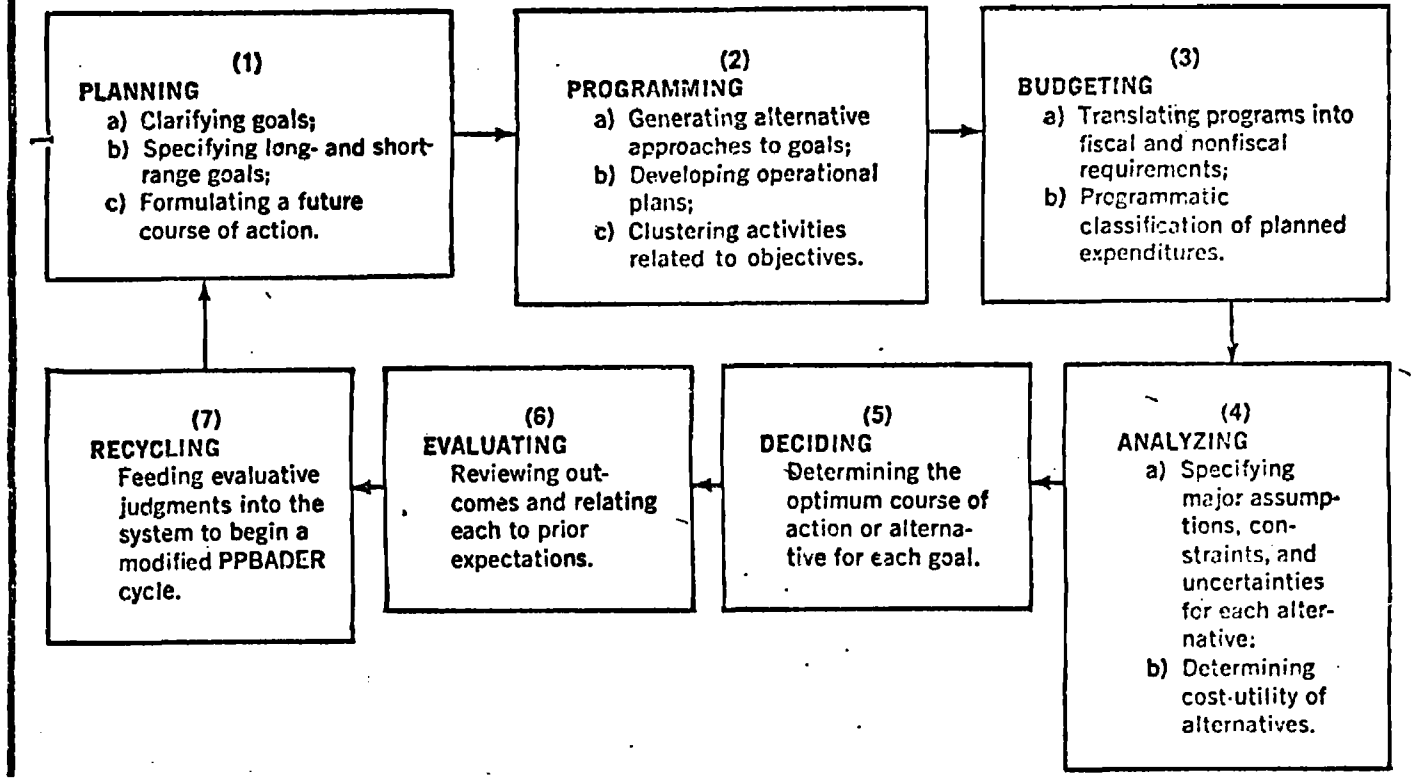
THE PLANNING, PROGRAMMING, BUDGETING SYSTEM



PLANNING, PROGRAMMING, BUDGETING SYSTEM (PPBS)



(PPBS) Cycle of Activities



PROGRAM MEMORANDA

P	P	B

- PROPOSED OBJECTIVES AND NEEDS IN A PROGRAM AREA
  - BENEFITS AND COSTS OF CURRENT PROGRAMS
- PROPOSED PROGRAMS
  - CURRENT FISCAL PERIOD
  - LONG RANGE
- ALTERNATIVES CONSIDERED
- BENEFITS AND COSTS OF ACHIEVING PROPOSED OBJECTIVES
- CONCLUSIONS

PROGRAM BUDGET

P	P	B

DEFINITION: A PLAN FOR THE ALLOCATION OF FUNDS TO PROGRAMS FOR A SPECIFIED TIME PERIOD

PURPOSE: TO ALIGN FINANCIAL RESOURCES WITH OBJECTIVES OF PROGRAMS

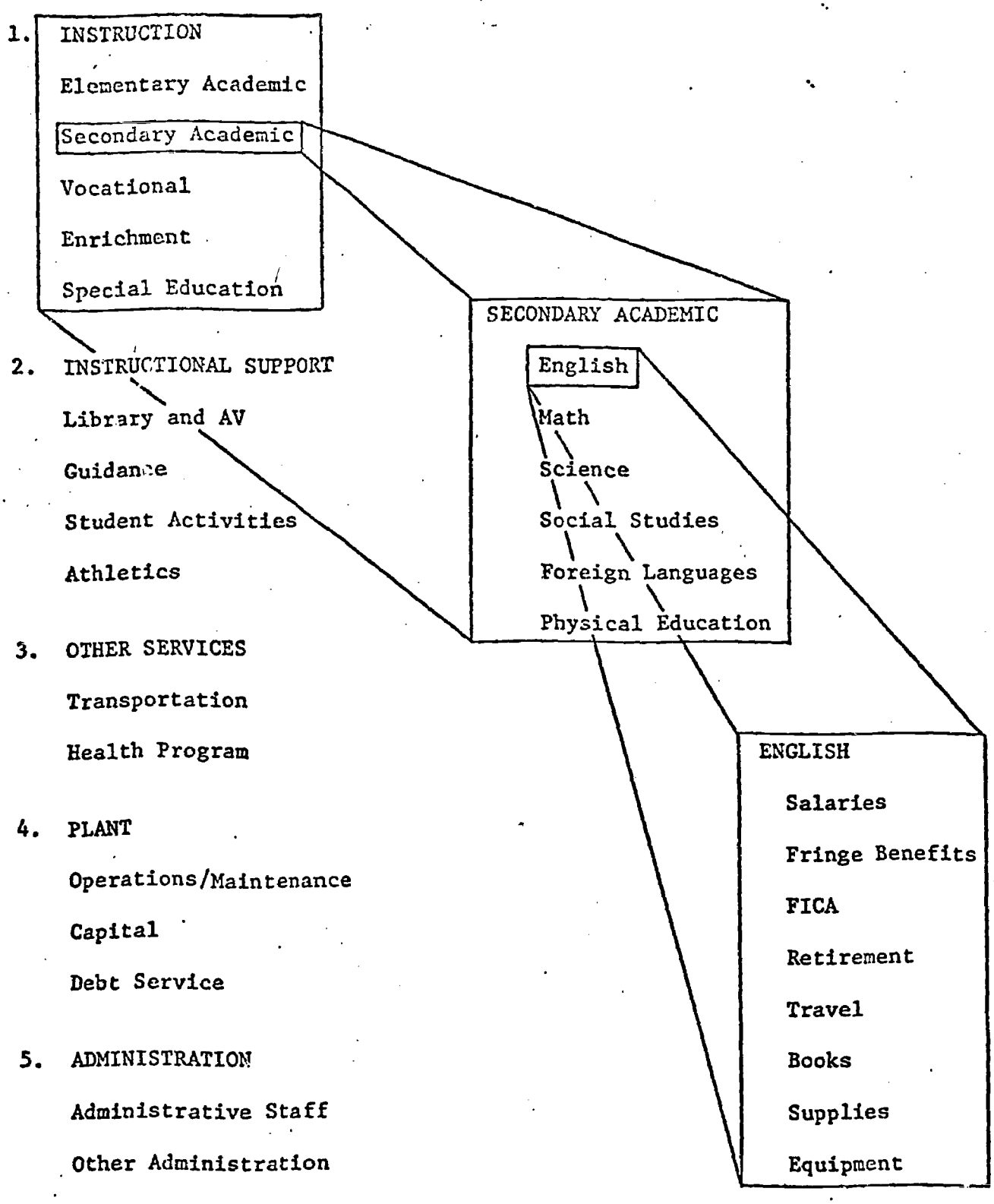
MULTI-YEAR PROGRAM AND FINANCIAL PLAN

P	P	B

DEFINITION: A TABULATION OF PERTINENT DATA RELATING TO COSTS, OUTPUTS AND FINANCIAL REQUIREMENTS

PURPOSE: TO REFLECT FUTURE IMPLICATIONS OF CURRENT BUDGET DECISION

Program Budget Categories for Public Education



--Richard S. Durstine and Robert A. Howell
Toward FPBS: Program Budgeting in a Small School District

Sample Program Data Sheet

PROGRAM TITLE_____

PROGRAM ID NO._____Program No._____PROGRAM LEVEL_____

PROGRAM DESCRIPTION_____

PROGRAM OBJECTIVE_____

PROGRAM EVALUATION METHOD_____

SUPPORTED PROGRAMS_____

SUPPORTING PROGRAMS_____

RESPONSIBLE INDIVIDUAL_____

RESOURCE ELEMENTS (1)	CURRENT YEAR (2)	FIRST YEAR UNITS (3)	FIRST YEAR RATE (4)	FIRST YEAR AMOUNT (5)	2ND YEAR (6)	3RD YEAR	4TH YEAR	5TH YEAR
SALARY TEXTBOOKS SUPPLIES OTHER								
DIRECT TOTAL								
ALLOCATED INDIRECT COSTS								
TOTAL								

REVENUE SOURCES (7)_____

ADDITIONAL INFORMATION (8)_____

APPROVED BY_____

1 Specify the required resources for the operation of the program.

2 The current year's actual program operating costs should be stated here by object classification by the business office. If actual costs are not available, estimated costs should be entered.

3 Enter the units of resource elements required for the operation of the program.

4 The unit price of the resource elements should be entered here by the business office.

5 The units should be extended by the unit price (rate) and the result of the extension entered here.

6 The expected costs of the program operation for the next four years should be projected.

7 Enter the source(s) of revenue (i.e., state, federal, local) and the actual amount expected.

8 Any additional information which could be helpful in the budget preparation or the decision-making process should be entered here.

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School Management, February 1971

Typical Program Budget

GOAL STATEMENTS

TO WORK WITH EACH CHILD TO HELP HIM LEARN THE BASIC INTELLECTUAL SKILLS OF LINGUISTIC FLEXIBILITY IN THOUGHT AND TONGUE THROUGH A FOREIGN LANGUAGE.

TO DEVELOP FLUENCY IN A FOREIGN LANGUAGE TO SUCH A DEGREE THAT AN EIGHTH GRADE STUDENT COULD VISIT A FOREIGN COUNTY AND UNDERSTAND AND CONVERSE WITH A NATIVE SPEAKER ON AN ELEMENTARY LEVEL, COMPREHEND PARTIALLY A PUBLICATION IN THAT LANGUAGE, AND MAKE HIMSELF UNDERSTOOD IN WRITING THE LANGUAGE.

OBJECTIVE STATEMENT AND EVALUATIVE CRITERIA

AT THE END OF THE EIGHTH GRADE:

THAT 75% OF THE STUDENTS BE ABLE TO COMMUNICATE IN THE LANGUAGE OF INSTRUCTION AT AN ELEMENTARY LEVEL WITH A NATIVE SPEAKER OF THAT LANGUAGE AS EVALUATED BY THE TEACHER.

THAT 50% OF THE STUDENTS SHOULD BE ABLE TO READ A MAGAZINE OR NEWSPAPER ARTICLE IN THE LANGUAGE OF INSTRUCTION AND STATE BRIEFLY IN THAT LANGUAGE A BRIEF SUMMARY OF THE ARTICLE AS MEASURED BY THE TEACHER.

THAT 80% OF THE STUDENTS WILL BE ABLE TO WRITE WITH EASE A DICTATION EXERCISE IN SPANISH BASED ON PREVIOUSLY STUDIED MATERIAL FROM THE TEXT BASED ON A TEACHER PREPARED DICTATION TEST.

THAT 75% OF THE STUDENTS WILL GIVE A FIVE MINUTE ORAL REPORT IN THE LANGUAGE OF INSTRUCTION ON A TOPIC OF THE STUDENT'S CHOICE TO THE TEACHER'S SATISFACTION.

THAT 70% OF THE STUDENTS WILL PASS THE VOCABULARY TEST PROVIDED IN THE TEXT WITH 85% ACCURACY.

PROGRAM DESCRIPTION

THE FOREIGN LANGUAGE PROGRAM COVERS THE FOUR YEARS OF FIFTH, SIXTH, SEVENTH, AND EIGHTH GRADES IN THE SUBJECTS OF SPANISH AND FRENCH. THERE ARE SIX TEACHERS IN THE PROGRAM, THREE IN EACH SUBJECT. THE FIFTH AND SIXTH GRADE STUDENTS RECEIVE 150 MINUTES OF INSTRUCTION WEEKLY, THE SEVENTH GRADE STUDENTS 135 MINUTES OF INSTRUCTION WEEKLY AND THE EIGHTH GRADE STUDENTS 110 MINUTES OF INSTRUCTION WEEKLY. INSTRUCTION IS PROVIDED IN A CLASSROOM ENVIRONMENT USING TEXTBOOKS, AND INCLUDES BOTH WRITTEN AND ORAL WORK. TEACHERS MAY USE OTHER INSTRUCTIONAL MATERIALS SUCH AS SONGS, PLAYS, MAGAZINES, NEWSPAPERS, FLASHCARDS, ETC. A LANGUAGE LABORATORY IS AVAILABLE CONTAINING RECORDS, TAPE RECORDERS AND FILMSTRIPS.

PROGRAM TITLE: FOREIGN LANGUAGE

--From PPBS Manual for California School Districts
Advisory Commission on School District Budgeting and Accounting
California State Dept. of Education

PERSONALIZED INSTRUCTIONAL UNIT IV

INSTRUCTOR'S NAME: Zdzislaw P. Wesolowski

INSTITUTION: Polk Community College

COURSE TITLE: Principles of Planning, Programming, Budgeting and Evaluation Systems.

TOPIC: Evaluation

TARGET GROUP: Community College Staff

APPROXIMATE WORKING TIME: 1 class period

RATIONAL

A system should include a provision for evaluation, whether it is instructional or administrative. This unit deals with an effort to analyze accomplished objectives in quantitative and qualitative terms within an evaluation process. Products or outcomes of college programs are evaluated and related to specified objectives. In this process a determination is made to see to what extent objectives have been achieved, and outcome goals adequately pursued. Evaluation consists of a review of actual performance which provides evidence of whether or not stated objectives have been attained. As a feedback mechanism it provides for a redesign of objectives, a reassessment of programs and priorities, and allocation of resources. It is a means of providing for a continuous renewal of the college institutional programs. This form of self-correcting system enables an organization to be dynamic in its programs because it provides for feedback and a means for constant updating of objectives.

Evaluation is the final step in the PPBES model because it provides a measure of the extent or degree to determine if needs and college

goals are met. The relationship between imputs or resources (costs) and outputs (benefits, effectiveness) is a part of the model which provides a method of evaluating the efficiency of the total college system. The evaluation process developed for each objective will provide the means to determine if the objective has been achieved. The evaluation method can be both subjective and objective by providing a means to determine program effectiveness and performance standards. In this process the college compares the program results against the evaluation criteria established in the planning phase. If the objectives are not accomplished, the program is examined and an attempt is made to identify the reasons why the desired objectives were not met. There may be a possibility why the desired objectives were not met. There may be a possibility that the reason may be that resources were inadequate. A corrective action can be taken at any time in the PPBES process to remedy the situation and attain the desired results. PPBES is a continuous open ended process. It can be entered at any time or at any point. Most important factor however is that the college can modify its goals and objectives at any time if the situation warrants it. Thus PPBES provides for flexibility by a means of constant examination of its objectives as the situation changes in the community and as each of us take action to improve our efforts during the process.

In summary, the purpose of evaluation is to compare actual accomplishments with desired outcomes in order to improve performance at all levels of the organization. Successful evaluation can only be attained and be precise as the specificity in the statement of college objectives (IBO) requires formative evaluation which makes provision

for assessment during each activity and during the time it is taking place so the performance may be improved during the period of implementation.

The links established between output goals, objectives, inputs, and processes provide a basis for systematic program evaluation. It is possible to assess outputs to determine if our output goals have been achieved. The links established between output goals, objectives, inputs, and processes provide a basis for systematic program evaluation. It is possible to assess outputs to determine if our output goals have been achieved. Output assessment must be related back to program activities and resource demands to provide a basis for continually adjusting programs to meet changing needs. The difficulty of assessing outputs stems from the inability or unwillingness to state in specific terms what one wants to produce and with what quality and quantity. A commitment to some goal or objective is of primary importance to the success of PPBES. Your willingness to make a commitment to your profession, your students and to the community will be an important factor in the success of our college in providing the type of services which will realize the greatest good for the greatest number.

OBJECTIVES

Upon completion of this Unit you will be able to:

1. Evaluate outcomes related to each objective.
2. Measure the degree of change that has taken place as a result of your participation in a program.
3. Determine whether the change is due to your activities or some

other cause.

4. Define which objectives were achieved.
5. Identify which objectives were not achieved.
6. Analyze the factors contributed to the accomplishment of specific objectives and the failure to accomplish others.
7. Prepare a list of possible alternatives to improve future performance and goal attainment.

LEARNING ACTIVITIES

1. Read Haggart pages 102 to 241, 252 to 256, 270 to 283.
2. Read Sabine pages 35 to 57, 165 to 191.
3. Read Florida PPBES Design Criteria pages 72 to 84.
4. Listen to cassette tape #5, Introduction to PPBES, University of Michigan.
5. Listen to cassette tape #3 by Odom.
6. Attend class lecture for Unit IV.
7. View Transparency #1. PROGRAM EFFECTIVENESS
8. View transparency #2. A MODEL FOR MBO
9. View transparency #3. ACCOUNTABILITY IN HIGHER EDUCATION

PROGRAM EVALUATION

4.1 The Need for Evaluation

A major objective of a Planning, Programming, and Budgeting System is to provide a systematic methodology for program evaluation. This is a very difficult task when one considers the problems involved; e.g.

- The difficulty of defining or identifying outcomes or outputs. The mobility of students within and between institutions, students dropping in and out, the wide range of reasons students express for attending a community college, and the large number of partial program completions makes it very difficult to assess the value added as the result of the educational process.
- The large number of intervening and uncontrollable variables which makes the definition of a clear-out cause and effect relationship practically impossible to establish and prove.
- The expense of collecting and analyzing reliable data needed for evaluation of outcomes is sometimes prohibitive.
- The confusion centered around identifying what one is attempting to evaluate - programs, courses, students, colleges or the State System.

In the face of all these difficulties, evaluation is being demanded by the legislature and the public at-large to provide some degree of accountability for the outputs of educational systems. The purpose of this section is to commend an approach to evaluating the outputs of community colleges on a

system-wide basis and to suggest the persons or agencies who will be responsible for conducting each facet of the evaluation.

The levels in the Program Structure at which the system-wide evaluation will be conducted is the Instructional Subprogram and Category levels. Initial efforts will probably be limited to the subprogram level, with the goal of developing evaluation procedures to the category level. It should be noted that institutional evaluative efforts should be conducted at all levels of the Program Structure and for support programs, as well as the Instruction Program.

There are three basic methods of evaluation which will be discussed in this Section; namely,

- comparative analysis of estimated to actual output measures,
- analysis of normative data related to program measures,
- and systematic follow-up of students.

The first two methods are quasi-evaluative in the sense that the results do not establish a quantitative relationship between programs and outputs, but they do provide important information to support decision-making on an institutional and state-wide basis.

4.2 Comparative Analysis of Estimated to Actual Output Measures

The output measures shown in the Program Planning Reports are indicators of the volume of outputs, or productivity, actually realized or expected over the time span of the planning period. These measures highlight the programs which are funded in terms of what is expected to be "bought" over the planning period for the dollars shown by the financial measures. This type of descriptive information also illustrates the need for additional resources due to increasing demands for services or changing modes of operation. The following example shows that an

estimate of manpower needs over a five-year period indicates a need for 150 persons per year with specific occupational training. It also shows the planned output to meet this need and the actual output productivity over the five-year period.

	Year 1	Year 2	Year 3	Year 4
Manpower Need	150	150	150	150
Planned Output	100	120	140	150
Actual Output	90	80	100	95

Obviously, the actual output is not increasing at a rate necessary to meet either the estimated manpower need or the planned output level. The fact is that a decision will be made, either explicitly or implicitly, which will determine the future course of this program. Although there are many alternatives, there are two major options decision-makers must consider; namely,

- to adjust the priority of the program and take positive steps to increase the level of actual output,
- or to continue at the current output level and admit that the educational system cannot meet the manpower needs.

As mentioned previously, PPBS is an output oriented system. The above example illustrates a type of quasi-evaluation related to output objectives and relative program priorities. This type of evaluation makes resource allocation decisions to achieve desired levels of output quite explicit. This must be done if PPBS is to function effectively.

4.3 Development and Analysis of Normative Data

The program measures shown in the Program Planning Reports provides a source of information for developing normative data. This type of quasi-evaluative approach is based on a statistical analysis of comparable information received from each college. Again, there is not a basis for making value judgements related to quality of program outcomes, but it will provide information which can be used to compare similar activities conducted at the various colleges. Normative data cannot be considered the only information needed for decision-making. It simply adds to the total body of information which assists the decision-makers in coming to a conclusion.

4.4 Systematic Follow-up of Students

It is beyond the scope of the present PPBS project to develop in detail the procedures and methods necessary to conduct the follow-up of students on a systematic basis. The primary concern is that the research procedures established coincide with the Program Structure presented earlier. As mentioned in Section 2, this Structure was designed to encompass the major goals legally and philosophically established for Florida's community colleges. It follows, that the follow-up of students should be oriented to determine the success of college programs in achieving stated goals and specific objectives. The following pages provide an overview of the types of research which must be conducted for each instruction subprogram which is to be evaluated. It is not intended to be all inclusive and exhaustive, but rather to provide a general framework for the development of a systematic program of evaluation. The format is as follows:

Subprogram Title and Code

Categories - Specific groups of curriculum programs which produce discernable outputs.

Goal - A general statement related to the desired results of each subprogram or category

Approach - Purpose: describes what we want to find out

Procedure: suggests how it might be done.

Research Responsibilities: suggests who should be responsible for conducting the research.

Subprogram: Advanced and Professional Instruction 1.10

Categories:
1.11 Natural Science Curricula
1.12 Physical Science Curricula
1.13 Social Science Curricula
1.14 Business Curricula
1.15 Letters Curricula
1.16 Humanities Curricula
1.18 General Degree (Transfer)
1.19 General Degree (Non-Transfer)

Goal: To provide persons with the knowledge, skills, and attitudes necessary to successfully complete a bachelors degree program by providing the first two years of general and specialized education.

Approach: Purpose: (1) To determine the performance of community college transfer students at State universities with consideration given to:

A. Credit hours completed at the community college by graduates and non-graduates.
B. Credit hours required to complete a bachelors degree program.
C. Withdrawal or academic dismissal rate and reason for withdrawal.
D. Mean differences between lower division grade point averages and upper division grade point averages.

E. Florida 12th grade test scores.

F. Categories of majors (see above).

G. Comparison with native students.

H. Other characteristics of students or the college from which the student transferred.

Purpose: (2) To determine the value added to the student based on the judgment of the student.

Procedure: (1) Follow-up of community college students transferring to other institutions of higher education in the state.

(2) Follow-up questionnaire related to the student's opinion of the value of the community college instruction.

Research Responsibilities: (1) Division of Community Colloges will conduct follow-up of community college transfer students on a system-wide basis.[1]

(2) The Division of Community Colleges will develop a standard follow-up questionnaire form for students in the Advanced and Professional Subprogram.

(3) Each community college will be responsible for conducting the questionnaire follow-up procedure.

[1] Divisions of Universities and Community Colleges are currently working cooperatively to implement such a follow-up research project.

Subprogram: Occupational Instruction 1.20

Categories: 1.21 Agriculture Occupational Curricula

1.22 Distributive Occupational Curricula

1.23 Health Occupational Curricula

1.24 Home Economics Occupational Curricula

1.25 Office Occupational Curricula

1.26 Trade and Industrial Occupational Curricula

1.27 Technical Occupational Curricula

Goal: To prepare students with the knowledge, skills, and attitudes necessary for employment in a specific occupational field upon completion of all or part of a specified curriculum by providing ocupationally oriented programs which meet employment demands of the community.

Approach: Purpose: To determine the subsequent performance of community college occupational students with consideration given to:

A. Credit hours completed at the community college
B. Grade point average
C. Job responsibilities (as described by employer)
D. Value of the program to the student based on the perception of the student
E. Value of the program to the student based on the perception of the employer.
F. Comparison of persons in similar positions but with no formal training.

Procedure: Follow-up of community college occupational students -- questionnaire for students and employers.

Research Responsibilities: The Division of Community Colleges will design standard follow-up questionnaires for occupational students and employers. The responsibility for conducting the follow-up studies will be assigned to each college.

Subprogram: Developmental Instruction 1.30

Categories: 1.31 Compensatory Education

1.32 Adult Elementary and Secondary Instruction

Goals:

Compensatory - To prepare students possessing inadequate skills, attitudes or educational backgrounds to enter a college program, a vocational program, or directly into employment by providing special curricula designed to prepare students for college level work and/or to develop self-concepts compatible with their capabilities.

Adult Elementary and Secondary Instruction - To provide educational opportunities for adult students including literacy, GED, high school completion, and adult basic education (HBE).

Approach: Compensatory

Purpose: To determine the subsequent performance of students in college level instruction, vocational training, or in subsequent employment with consideration given to:

A. Credit hours of compensatory education completed
B. Completion of a community college program
C. Withdrawal or academic dismissal rate from the compensatory program or other college programs (reasons for withdrawal)
D. Florida 12th Grade test scores
E. Comparison with college students not taking a compensatory program
F. The students evaluation of the compensatory program

Approach: Adult Elementary and Secondary Instruction

Purpose: To determine the value of these instructional activities to the recipients with consideration given to:

A. Number of persons enrolled

B. Number of persons completing programs

C. Student evaluation of the program

D. Success in subsequent educational endeavor

Procedure: Both Categories

A. Exit interview with students

B. Follow-up questionnaire (or other type of contact)

C. Follow-up of students in subsequent college-level instruction

Research Responsibilities: Both Categories

This will be conducted by the college. A common (or standard) set of questions will be developed by the Division of Community Colleges to provide consistency of results.

Subprogram: Community Instructional Services 1.40

Categories: 1.41 - Citizenship Instruction

1.42 - Non-Vocational Courses

Objectives:

Citizenship Instruction - To develop an understanding in the areas of consumer education, child care, family economics, personal health and nutrition, and activities for the aging.

Non-Vocational Courses - To provide non-vocational enrichment and cultural activities for persons in the community.

Approach Both Categories - To determine the value of these instructional activities to the recipient.

Procedure: Exit interviews and follow-up questionnaires

Research Responsibilities: This will be conducted by each college with a common set information to be collected for each category developed by the Division of Community Colleges.

Subprogram: Other Curricula Categories 1.90

Categories: 1.91 - Retraining and Occupational Upgrading

1.92 - Fulfillment of Other Personal Objectives

Goal: To provide educational opportunities for persons to fulfill personal goals which do not necessarily coincide with established programs, subprograms, and categories.

Approach: Purpose - To determine if the recipient is satisfied with the program he selected.

Procedure - Follow-up of students

Research Responsibility - The Division of Community Colleges will design the follow-up questionnaire. Each college will conduct the follow-up study.

UNIT EVALUATION

INSTRUCTOR: _____

DATE: _____

I. Session Appraisal

A. Please rate your degree of INTEREST in the subject of today's session.

LOW | | | | | | HIGH (check one)

B. Please rate the VALUE RECEIVED from the session.

LOW | | | | | | HIGH (check one)

C. What were the most effective segments of the unit? Why?

_____

_____

D. What were the least effective segments? Why?

_____

_____

E. What suggestions do you have?

_____

_____

II. Instructor Appraisal - Rate the instructor using the designation indicated below for the values of your rating. 5 - Excellent, 4 - Good, 3 - Satisfactory, 2 - Acceptable, 1 - Unsatisfactory.

1. Organization & Topic Coverage
   a. Was presentation well organized? _____
   b. Was discussion encouraged & guided? _____
   c. Was topic covered adequately? _____
   d. Was topic relevant to your job requirement? _____
   e. Were stated unit objectives met? _____

2. Presentation
   a. Was explanation clear? _____
   b. Was instructor prepared? _____
   c. Does instructor stimulate interest? _____
   d. Was best use made of visual aids? _____

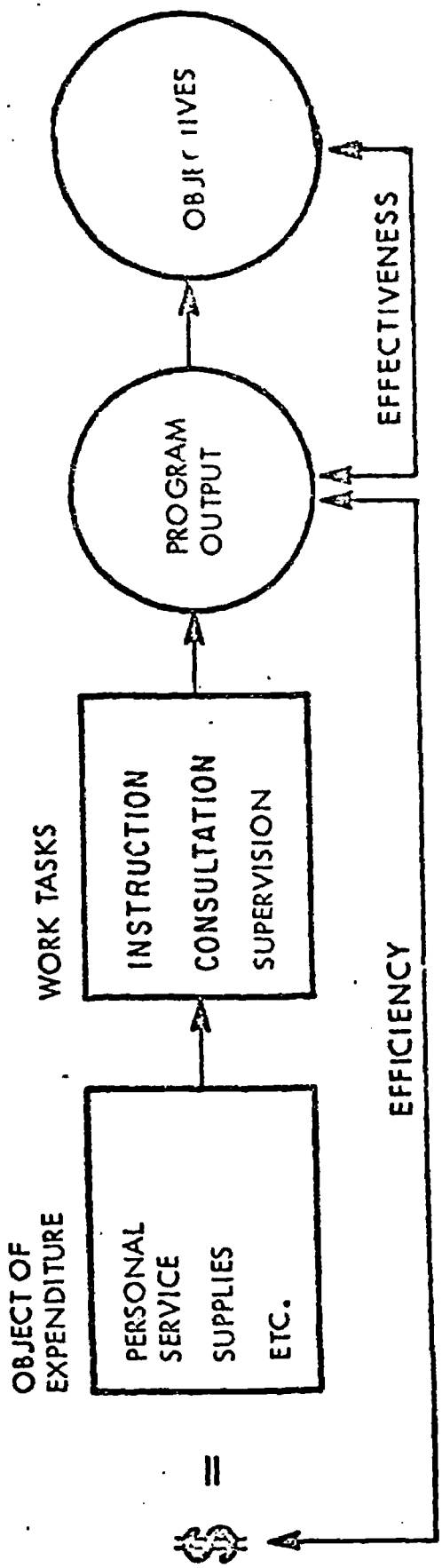
III. What questions do you have as a result of today's session?

_____

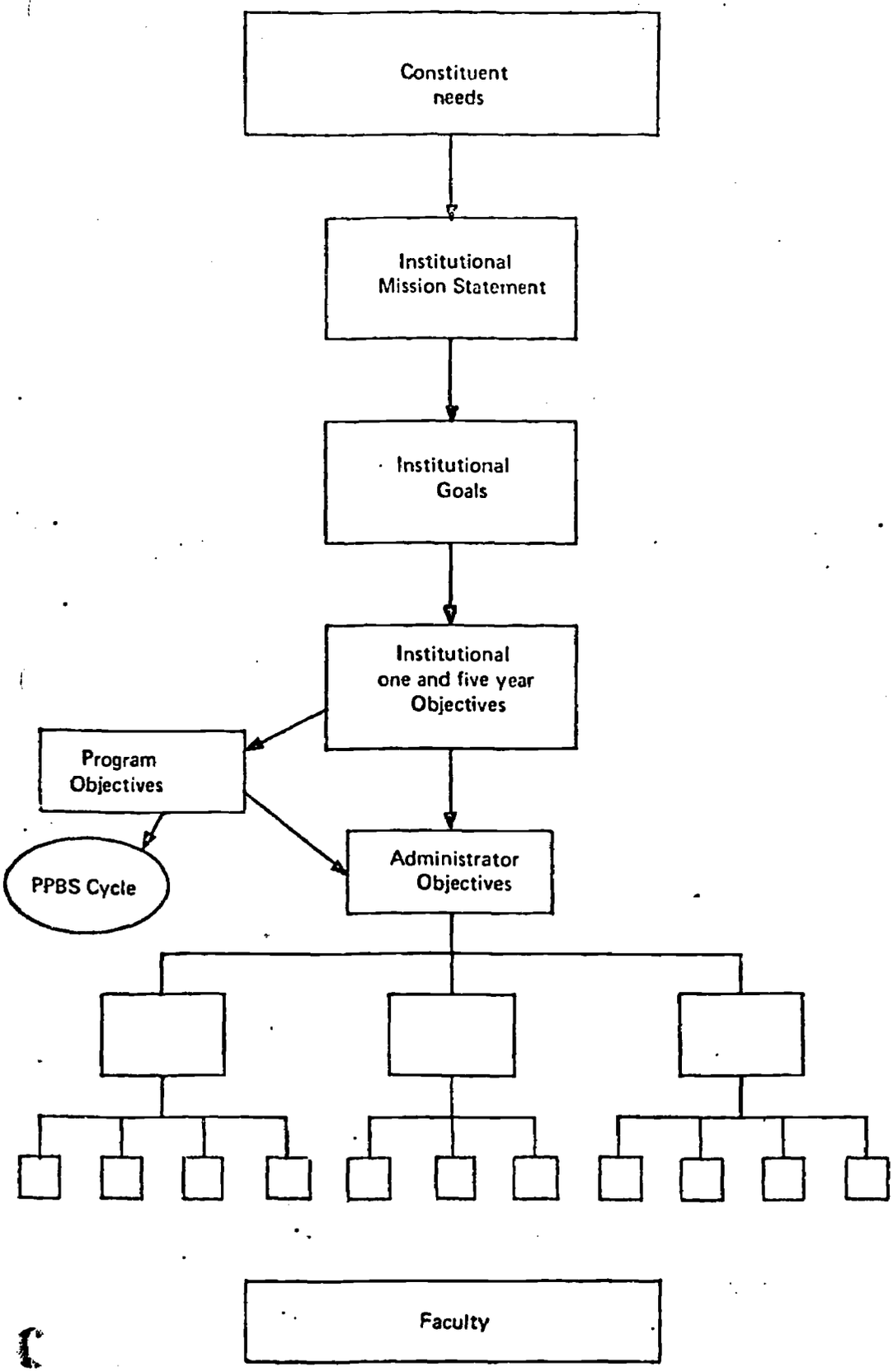
_____

_____

PROGRAM EFFECTIVENESS



A MODEL FOR THE M.B.O. PROCESS IN HIGHER EDUCATION



Step 1. Clarify and define constituent needs .

Step 2. Clarify and develop Institutional Mission Statement

Step 3. Define and state the basic goals of the institution.

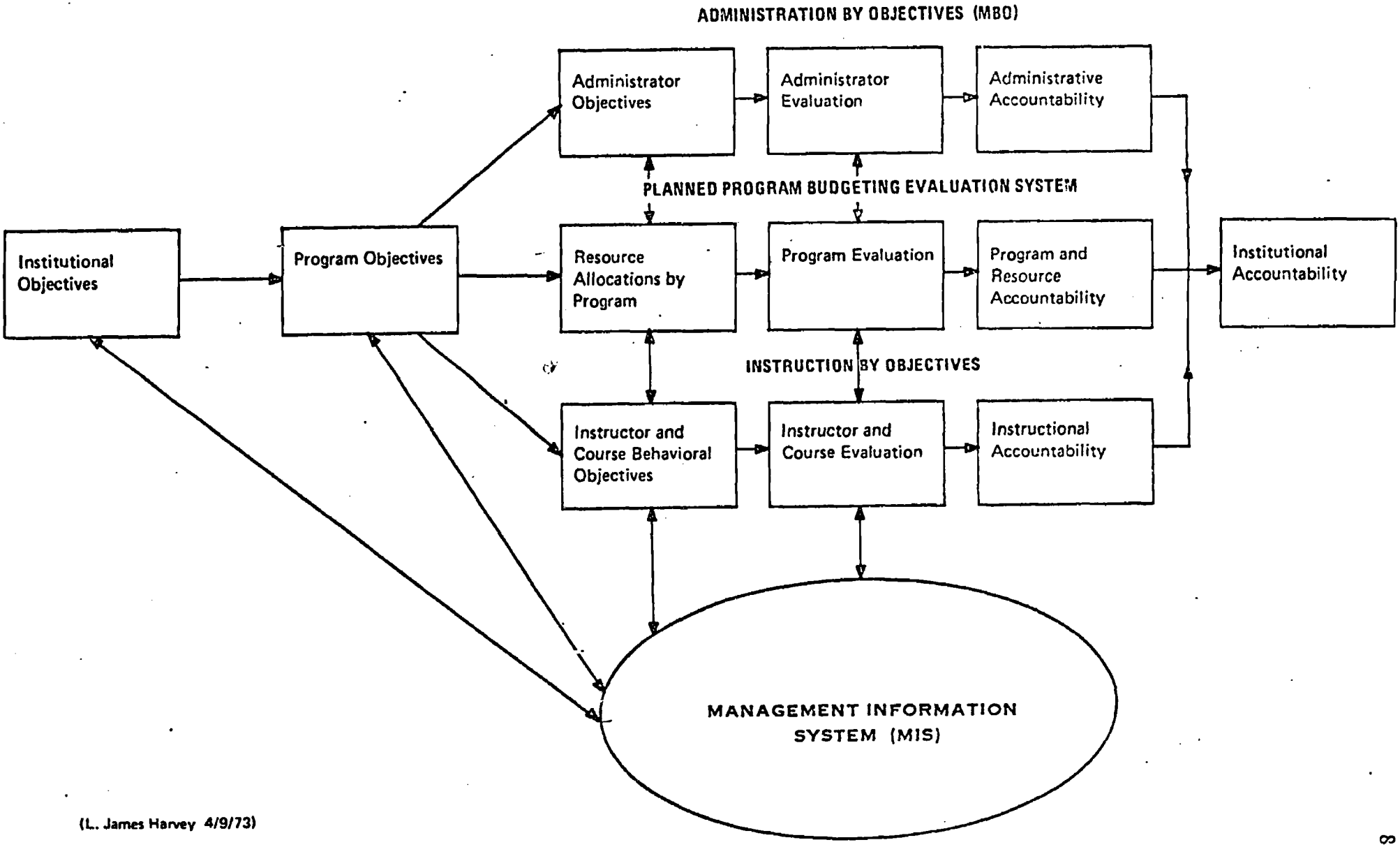
Step 4. Each year develop one and five year objectives.

Step 5. Develop specific one year program objectives. Five year objectives may also be developed

Step 6. Each year develop one year, specific, quantifiable objectives for administrators which are directly related to the program and Institutional Objectives.

Step 7. If an institution wishes, objectives can be developed as in Step 5 for department chairmen, faculty and counselors in the same or a modified form of those used by administrators.

ACCOUNTABILITY IN HIGHER EDUCATION THROUGH THE SYSTEMS APPROACH



(L. James Harvey 4/9/73)

PERSONALIZED INSTRUCTIONAL UNIT V

INSTRUCTOR'S NAME: Zdzislaw P. Wesolowski

COURSE TITLE: Principles of Planning, Programming, Budgeting and Evaluation Systems

TOPIC: Management Information Systems

TARGET GROUP: Community College Staff

APPROXIMATE WORKING TIME: 1 class period

RATIONAL

MIS is a process for developing the information required for management decision making and for externally required reports to state and federal agencies. The major function of MIS is to collect pertinent data in the college data base and translate the data into information which will be used for PPBES. The system consists of a set of analytical techniques which convert data base elements into meaningful management information. The major concern is one of identifying analytical techniques which will provide the right information required to make rational decisions. The process consists of carefully collected information regarding personnel, data and resources available to the college. In the present context MIS is usually considered to be computer based, that is the information necessary for decision making is stored and retrived with a computer. A computer based management information system is presently being developed on our campus. The system consists of several subsystems with a combination of manual and computer processes. To date there does not

exist a total automatic computerized management information system.

A highly sophisticated MIS produces information that greatly increases the possibility of better management decisions. MIS being composed of several large subsystems depends upon the input of information from various sources which must be carefully integrated into a compatible total system. Major subsystems consist of student records, personnel records, financial records, learning resources, facilities and institutional research. Information flow via the MIS is a two-way street. Information is supplied to the decision maker by lower level managers is in turn used in the analytical process to project future resource requirements which effect every member in the organization. In other words the output of one level of management is the input of another level and vice versa. In the final analysis, all members of the college community share and use mutually collected data for decision making. Without a computer based MIS it would be very difficult to test alternatives, allocate resources, and evaluate program results.

In summary a MIS is used for collecting, analyzing and disseminating information for use in evaluation and decision making. MIS is concerned with the following functions regarding data:

1. collection or capture of data.
2. storage
3. retrieval
4. processing
5. communication

6. display and duplication
7. analysis.

OBJECTIVES

Upon completion of this Unit you will be able to:

1. Identify the types of data required for management decision making in an educational environment.
2. Understand the importance of a computer based MIS.
3. Design your own department's information systems needs.
4. Decide what data you need which would help you make better decisions.
5. Demonstrate your knowledge of MIS by being able to identify subsystems of MIS.
6. Determine if the present college MIS is adequate for future needs.

LEARNING ACTIVITIES

1. Read Hussain pages 81 to 194.
2. Read Florida PPBES Procedures Manual pages 6.101 to 8.7.03.
3. Listen to cassette tape #6, Introduction to PPBES, University of Michigan.
4. Listen to cassette tape #4 by Odom.
5. Attend class lecture for Unit V.
6. View Transparency #1. MANAGEMENT DECISION SYSTEM
7. View transparency #2. INPUT, PROCESS, AND OUTPUT
8. View transparency #3. DATA REQUIREMENTS

UNIT EVALUATION

INSTRUCTOR: _____

DATE: _____

I. Session Appraisal

A. Please rate your degree of INTEREST in the subject of today's session.

LOW | | | | | | HIGH (check one)

B. Please rate the VALUE RECEIVED from the session.

LOW | | | | | | HIGH (check one)

C. What were the most effective segments of the unit? Why?

_____

_____

D. What were the least effective segments? Why?

_____

_____

E. What suggestions do you have?

_____

_____

II. Instructor Appraisal - Rate the instructor using the designation indicated below for the values of your rating. 5 - Excellent, 4 - Good, 3 - Satisfactory, 2 - Acceptable, 1 - Unsatisfactory.

1. Organization & Topic Coverage
   a. Was presentation well organized? _____
   b. Was discussion encouraged & guided? _____
   c. Was topic covered adequately? _____
   d. Was topic relevant to your job requirement? _____
   e. Were stated unit objectives met? _____

2. Presentation
   a. Was explanation clear? _____
   b. Was instructor prepared? _____
   c. Does instructor stimulate interest? _____
   d. Was best use made of visual aids? _____

III. What questions do you have as a result of today's session?

_____

_____

_____

ERIC

MANAGEMENT DECISION SYSTEM

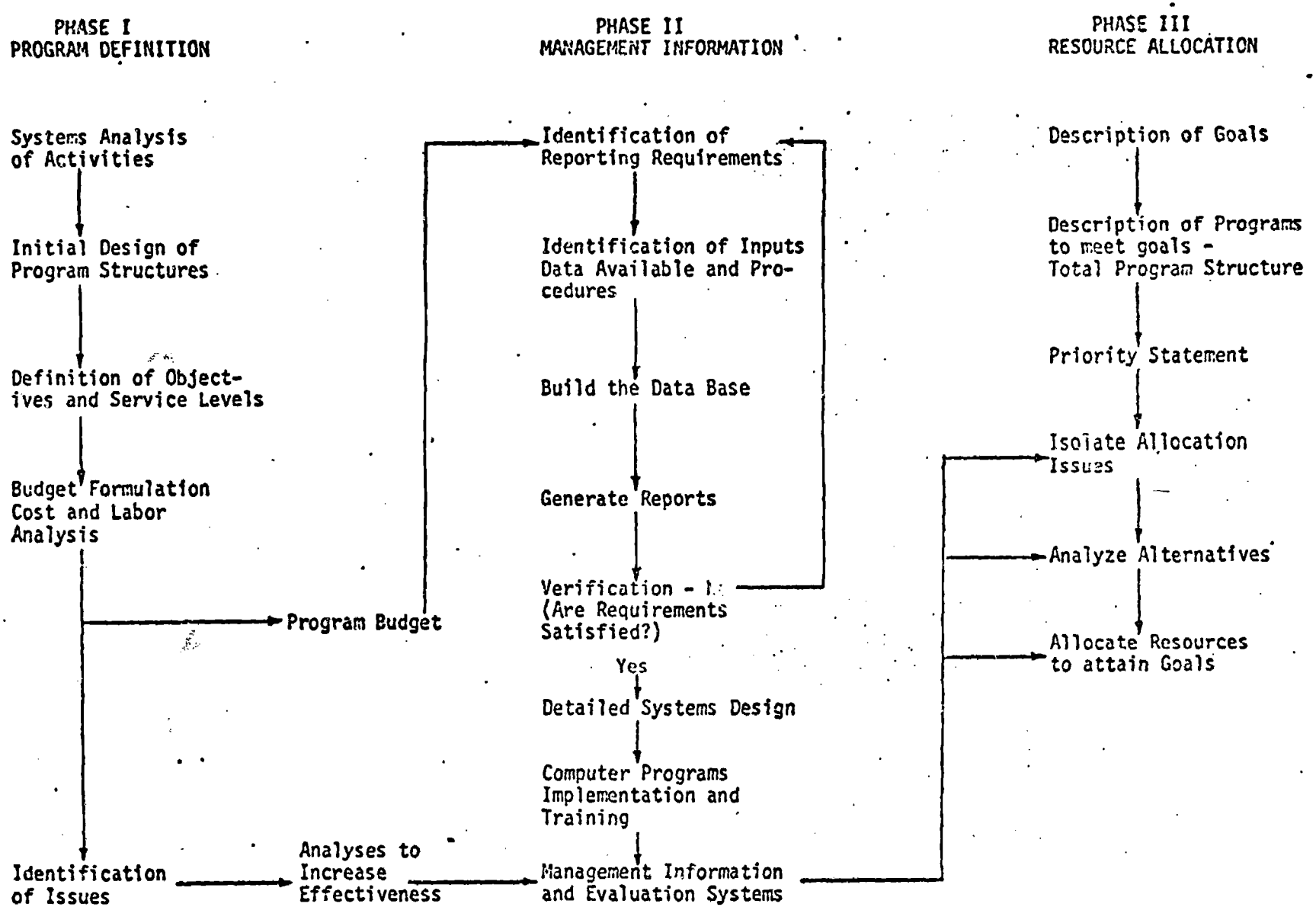


EXHIBIT 1

INPUT, PROCESS, AND OUTPUT VARIABLES AT THE INSTRUCTIONAL LEVEL

Input Variables	Process Variables	Output Variables
Personal Time	Teacher - Student Ratio	Discrete increment of factual or conceptual material transferred or added to a student
Teaching	Average Class Size	
Administrative	Objectives (in terms of desired outcomes)	Increased Skills
Clerical		Social Adaptation
Maintenance	Instructional Methods or Strategies	Increased Intellectual Curiosity
Auxiliary	Contact Hours/Term	Development of Creativity
Materials & Supplies		
Equipment		
Physical Facilities		
Library Resources		

TABLE 1: Data Requirements

	Personnel & Payroll Master (PM)	Department Budgetary Accounting Master (DM)	Course Master (CM)	Property Record Inventory Master (IM)
Record	Employees	Organizational Units & General Ledger Accts.	Course Sections	Equipment
	1. Organizational Unit Code ←→	1. Organizational Unit Code ←→	1. Organizational Unit Code ←→	1. Organizational Unit Code
	2. Social Security Number	2. Object Codes for Expenditure Type	2. Instructor Number and/or Social Security Number	2. Item Code
	3. Instructor	3. Fiscal Year Expenditures by Object Code	3. Course Section Code - Course Prefix, Number, and Section	3. Cost of the Equipment
	4. Name	4. The following should be identifiable by Organizational Unit or Object Code:	4. Credit Hours or Equivalent	4. Acquisition Date
	5. Pay Type Code (General Ledger Code)	a. Expenditures for plant and grounds	5. Enrollment	
	6. Salary Paid for Fiscal Year	b. Library inventory	6. Hours Meeting Per Term	
	7. Deduction Rates	c. Value of land, buildings, etc.	7. Program ID Code - HEGIS Taxonomy Code, etc.	

POST-EVALUATION SELF-TEST

TWENTY QUESTIONS ON PLANNING, PROGRAMMING, BUDGETING AND EVALUATION

	TRUE	FALSE	DON"T KNOW
1. PPBES is nothing more than a methodology for improving decisions that have to do with the allocation of resources to attain satisfaction of our needs.	___	___	_____
2. Efficiency in PPBES is simply the saving of money.	___	___	_____
3. In PPBES, efficiency and goals are related.	___	___	_____
4. The systems approach is used in PPBES.	___	___	_____
5. Need is the discrepency between the present state or condition and what is inteneded.	___	___	_____
6. Goals are determined from objectives.	___	___	_____
7. PPBES eliminates alternatives.	___	___	_____
8. Planning is generally brought about by need.	___	___	_____
9. Planning is merely the setting down of goals and determining objectives.	___	___	_____
10. In Programming, structuring helps generate possible mixes of inputs.	___	___	_____

More on next page

	TRUE	FALSE	DON"T KNOW
11. Structuring facilitates the development of program structure.	____	____	_____
12. Programming is dependent upon planning.	____	____	_____
13. In Programming, the decision maker trades-off mixes never college objectives.	____	____	_____
14. Making rational decisions about allocating resources is what PPBES is all about	____	____	_____
15. The best way to structure a college program is by "What's".	____	____	_____
16. Budgeting is related to Programming, not to Planning.	____	____	_____
17. PPBES is mainly a way to save money.	____	____	_____
18. PPBES is a linear and static process,once one phase is completed, you need never return to it.	____	____	_____
19. PPBES is best applied to yearly budgets with its short term consequences.	____	_____	_____
20. Evaluation in PPBES is done only at the end of the year when final tests are given to students.	____	_____	_____

Turn to the next page for correct answers.

CORRECT ANSWERS FOR SELF-TEST

1. FALSE
2. FALSE
3. TRUE
4. TRUE
5. TRUE
6. FALSE
7. FALSE
8. TRUE
9. FALSE
10. TRUE
11. TRUE
12. TRUE
13. FALSE
14. TRUE
15. FALSE
16. FALSE
17. FALSE
18. FALSE
19. FALSE
20. FALSE

If you didn't meet your objectives by answering all of the above questions correctly don't feel badly. Start the course again or the portions which you are not sure of. See the instructor for assistance. Good luck.

COURSE REVISION

1. Was the course what you expected when you started?_____
2. Was the course in keeping with the outline provided? _____
3. What material covered do you feel was most helpful understanding the course? _____
4. Were directions for self-study clear?_____
5. What comments do you have regarding:
   a. Text Materials: PPBES manuals, books, articles, etc.

      _____

   b. Audio-Visual: Film, cassette tapes, transparencies, etc.

      _____

   c. Lecture portion: explanations clear, unclear, well prepared, interesting, factual, etc. _____
   d. Participation: class discussions, members participation, small groups, etc._____
   e. Resource Person: adequate for the topic, clear, understandable, too technical, etc. _____
   f. Evaluation system: self-evaluation test adequate to measure your understanding of PPBES?_____
6. Did you gain some knowledge about the subject as a result of your participation in the course?_____
7. What do you consider to be the most valuable and useful result of this course in terms of your personal involvement in PPBES?

   _____

8. Do you feel the course could be better conducted in another way? _____

   _____

   _____

COURSE EVALUATION

Each participant is requested to evaluate the presentation on how well did the course meet the objectives that were set out. Please rate the following questions on the basis of a 5 point scale.

1. Excellent, 2. Very good, 3. Average, 4. Below average, 5. Poor

1. Develop an understanding of PPBES and its applicability to Florida Community Colleges? _____

2. Develop an understanding of how to implement PPBES and the major problems that could be encountered? _____

3. Develop a working knowledge of PPBES model. _____

4. Understand how an effective management accountability system can be developed. _____

5. Opportunity to participate in discussions. _____

6. Sensitivity of the instructor to individual participants needs and concerns. _____

7. Clarity and content of all presentations. _____

8. Developed a skill in writing objectives. _____

9. General overall evaluation of the course. _____

10. Please enter any additional comments you would like to offer for consideration._____

_____

_____

Definitions

1. ALTERNATIVE
   Various methods of achieving the same results. When used in connection with PROGRAMMING, it refers to the various mixes of resources, policies, procedures, and techniques which can be used to achieve the same basic results.

2. ASSOCIATE OF ARTS DEGREE
   This is a degree certifying that the recipient has completed the first two years of course work leading to a bachelors degree. It includes general education certification according to the Articulation Agreement.

3. ASSOCIATE OF SCIENCE DEGREE
   This is a degree certifying that the recipient has completed two years of college level course work and is prepared for entry into the job market in a specific occupational field. An associate of Science Degree Program is a curricular program designed to prepare persons for immediate employment in an occupation, rather than for further advanced study leading to a bachelor's or professional degree.

4. BUDGET
   The proposed programs of an organization (college) expressed in terms of money. It sets out the financial resources which are estimated to be available to the college for a specific accounting period and shows how these resources are expected to be expended.

5. CATEGORY
   A level of the PROGRAM STRUCTURE hierarchy. It is an aggregation of subcategories or specific HEGIS disciplines.

6. CERTIFICATE 1
   This is an award certifying that the recipient has completed a college occupational curricular program which is at least one year in duration. In this definition "one year" means that course work can be completed in two regular terms.

7. CERTIFICATE 2
   An award certifying that the recipient has completed a special occupational curricular program of less than one year duration. It may be a single course or series of courses designed for initial training or job upgrading in an occupational area. It is usually of a specialized nature and lasts for one term or less.

8. CLUSTER
   A level of the PROGRAM STRUCTURE hierarchy. It is an aggregation of the CATEGORIES or HEGIS discipline categories.

9. COST BENEFIT ANALYSIS
   Determination of the cost required to produce a specific individual or social benefit. In PPBS terms, it is a highly theoretical analytical model for determining the relative value of education for an individual and society.

10. COST EFFECTIVENESS ANALYSIS
Determination of the cost required to achieve a desired outcome. Requirements for this analysis are that:

A. All resources can be identified in terms of costs for the activities being analyzed.

B. The degree to which desired outcomes are achieved can be measured.

11. COST EFFICIENCY ANALYSIS
Determination of the cost of alternative courses of action which achieve basically similar results.

12. CREDIT HOURS
A numeric value assigned to a course which relates to an award to an individual for successful completion of the course. It usually indicates the quantity of course instruction completed in relation to total requirements for a degree or certificate.

13. CREDIT HOUR EQUIVALENT
Certain types of instructional activities are not assigned credit hours. For such courses, clock hours (or class contact hours) are equated to credit hours. One credit hour equivalent is equal to 27 clock hours. Therefore, to compute the credit hour equivalent for a non-credit course, divide 27 into the clock hours of the course.

14. CURRICULAR PROGRAM
A set of instructional activities, usually courses, established to produce specifically defined outcomes and output quotas, e.g., courses taken by art majors, nursing majors, or in any other field of study.

15. DIRECT COST
This is a measure of the resources used to carry on specific activities or groups of activities (cost centers) identified in the Program Structure. Direct costs are derived by distributing expenditures to cost centers of the Program Structure according to the conventions of the Cost Analysis System.

16. DISCIPLINE
A group of courses related to a specific academic area or field of knowledge; e.g. all mathematics courses comprise the mathematics discipline. The HEGIS Taxonomy is used to classify courses into disciplines.

17. ELEMENT (PROGRAM)
A collection of resources and technologies integrated through a set of activities and policies to produce specific outputs or to provide specific services. It is the lowest level of aggregation in the Program Structure which can be defined in meaningful terms for planning, programming, budgeting, and evaluation.

18. EVALUATION, Program
A systematic approach to determining the extent of achievement of program activities.

19. FIRST-TIME IN COLLEGE ENROLLMENT
This is the headcount of the number of students entering any college for the first time.

20. FULL COST
This is a measure of resources used to achieve the goals of the institution. They include direct costs plus expenditures allocated from cost centers which support the achievement of the goals.

21. FULL-TIME EQUIVALENT POSITIONS (FTE)
This is a comparable measure of human resource utilization. An FTE position is defined as the equivalent of one person carrying a full workload for a specified time period, usually an Academic or fiscal year. A full workload is defined by institutional policy.

A. FTE Instructional Positions will be based on a nine month or two term basis (Academic year). The FTE Instructional positions for the summer term will be computed separately and added to the average of the two regular terms to obtain the "annual FTE Instructional Positions."

B. FTE non-instructional positions (Executive-Administrative-Managerial, Non-Instructional Professional, and Support) are based on a 12 month year regardless of individual contractual arrangements, i.e., a person working 9 months with a full workload would equate to .75 FTE positions.

22. FULL-TIME EQUIVALENT STUDENT (REGISTRATIONS)
This is a comparable measure used for student accounting purposes. It is computed for a term by dividing the sum of the student credit hours of registration by 15. It is computed for an academic year by dividing the total student credit hour registrations for the year by 30.

23. GOAL
A statement expressing the mission or purpose of an organization or group. In a planning system they are used to structure and classify activities related to the achievement of a goal sought. In an evaluation system they are used as a basis for defining objectives and measuring progress toward achieving objectives.

24. HEADCOUNT ENROLLMENT
This is a count of the number of individual persons enrolled in a curricular program or an aggregation thereof. It is usually accounted for in terms of full-time and part-time students:

A. Full-time student - an individual registered for 12 or more credit hours per term.

B. Part-Time student - an individual registered for less than 12 credit hours per term.

25. HEGIS Taxonomy

The Higher Education General Information Survey (HEGIS) Taxonomy of Instructional Programs in Higher Education is used to classify both curricular programs and disciplines.

26. MANAGEMENT INFORMATION SYSTEM

A formal system for collecting, storing, maintaining, analyzing and reporting information needed for planning, programming, budgeting, and evaluating an organization or organizational unit.

27. MODELING

The development of a replication of a real or hypothetical system that specifies relationships between the various components of a system. In a PPB System a model is an analytical tool which can be used to conceptualize an institution along both program and organizational lines in order to project resource requirements needed by organizational units to carry out the programs of the institution.

28. OBJECTIVE

A statement specifying how a goal or set of goals will be accomplished. Objectives are expressed in terms of planned outcomes and planned outputs.

29. OUTCOME

A change in the knowledge, skill, and/or attitude of a person or group which resulted from a specified set of activities and conditions. Outcome measures are used to assess the effectiveness of programs and the benefits which accrue to individuals and society.

A. Planned Outcome - A statement of the intended extent and direction of change; hence an objective.

B. Actual Outcome - A measure of the actual extent and direction of change (outcome measure).

30. OUTPUT

The quantity of a product produced or the amount of service provided in a specified period of time.

A. Planned Output - A statement of the intended quantity or quota of production; hence an objective.

B. Actual Output - The quantity actually produced in a given time frame. (Output measure)

31. PERSONNEL RESOURCE

A category used to account for human resources needed to carry out the programs of an institution. Personnel resources are further classified by personnel assignment categories (Reference should be made to the detail classification scheme shown in A Manual for Manpower Accounting in Higher Education). The following briefly describes these categories:

A. Instructional Assignments - Includes assignments made to conduct instructional activities.

B. Executive - Administrative - Managerial Assignments - Includes assignments with the primary duty of planning, organizing and managing the institution or a subdivision (organizational unit) of the institution.

C. Other Professional (non-instructional professional) assignments - Includes assignments which require knowledge and competence of an advanced nature but which are not instructional or managerial in nature.

D. Support Assignments - Includes assignments requiring specialized knowledge or skills which may be acquired through experience or educational programs below the bechelor's degree; e.g., clerical, office crafts, trade, etc.

32. PLAN

A document which expresses the goals and objectives of an institution; shows the activities (programs) required to accomplish goals and objectives (or alternative activities); displays the resources and cost required to carry out these activities; and documents the success of achieving objectives in a prior time period.

33. PLANNING

The process or system for developing a plan for an institution, organizational unit, or program. In a generic sense it refers to goal definition and objective setting.

34. PROGRAM

In the generic sense, it is a set of activities which contributes to the achievement of goals of a group or organization. The concept of program focuses on the conceptual arrangement of activities contributing to goal achievement, rather than on the organizational arrangement of activities necessary to carry on institutional operations.

The term "Program" as used in the Program Structure refers to the highest level of aggregation of program elements; e.g., the Instruction Program or the Academic Support Program.

35. PROGRAMMING

Selection from a group of alternative courses of action, a specific course of action which will attain a desired result. It is the bridge between goals and objectives and the means by which these are attained.

36. PROGRAM BUDGET

A document which presents the historical, current, and projected program costs for a multi-year period. In the PPB System, it is used as the basis for requesting State funds.

37. PROGRAM COMPLETION

This is a measure of output quantity expressed in terms of the number of individuals completing program requirements of a curriculum program or some aggregation thereof.

38. PROGRAM DESCRIPTORS

Data elements which describe essential characteristics of programs needed for planning, programming, and budgeting. Program descriptors are used to express need for services and products; planned and actual outputs; activity levels generated; resources used or needed; and costs.

39. PROGRAM PLANNING SYSTEM

The formalized structure, procedures, policies, etc. established to develop program plans and budgets for an institution. It includes an annual cycle of review, evaluation, and updating.

40. RESOURCE ALLOCATION

A decision-making process for distributing limited resources to the programs developed by the institution. It involves establishing priorities by assessing the relative value of each program in achieving institutional or system-wide goals.

41. STUDENT CREDIT HOURS (REGISTRATION)

This is the sum of the credit hours and/or credit hour equivalents of all students taking a specific course or aggregation of courses. For a credit course it is computed by multiplying the course credit hours times the number of students registered. For a non-credit course, it is derived by dividing the total student clock hours (contact hours) by 27. Student quarter hours are converted to student credit hours by multiplying the student quarter hour by two-thirds (2/3).

42. STUDENT CREDIT HOURS EARNED

This is the number of student credit hours successfully completed by students in a course or some aggregation thereof.

43. SUBCATEGORY

A level in the Program Structure used for grouping program elements which support similar objectives.

44. SYSTEM

An assemblage of inter-dependent parts or activities which function as an orderly whole. This is the integrating feature of planning, programming, budgeting, and evaluation.

45. SYSTEMS ANALYSIS

Methodologies used to discover variables in a system (or influencing a system) and their relationships with other variables and the system as a whole.

46. TERM

This is a specified period of time established by college policy and used for student accounting purposes. It may contain several registration periods and separately identifiable sub-terms. The official enrollment for a term is the sum of the enrollments of each subterm registration. The only exception to this rule is that a student cannot be counted for the same course more than once during a term.

47. UNIT COST

This is a resource utilization measure computed by dividing the expenditures by an activity, input, or output unit.

A. Cost/student credit hour earned - is the expenditures for a course (or aggregation thereof) divided by the number of student credit hours completed by students enrolled in the course.

B. Cost/Student credit hour (registration) This is the expenditures for a course (or aggregation thereof) divided by the number of student credit hours registered for the course.

C. Cost/FTE Student Major - This is the proportionate expenditures for courses enrolled in by students in a specific curricular program divided by the number of full-time equivalent students enrolled in the program.

D. Cost/Program Completion - This is the expenditures for courses required for completion of a curricular program by a typical student.

LEGISLATIVE MANDATES FOR A PLANNING-PROGRAMMING-BUDGETING-EVALUATION SYSTEM

FLORIDA STATUTES

1969 Governmental Reorganization Act

Chapter 20.05 Each head of a department, except as otherwise provided herein, shall:

(2) Compile annually a comprehensive program budget covering such period as may be required reflecting all program and fiscal matters related to the operation of his department, each program, subprogram and activity therein and such other matters as may be required by law;

Chapter 23, Part I

23.011 Office of state planning and programming; chief planning officer; director of planning; employees.

(1) There is hereby created an office of state planning. Such office shall be a separate division under the state planning and budget commission. The governor shall be the chief planning officer of the state, and to facilitate the carrying out of the provisions of this law, a director of planning for state planning and programming shall be appointed by the governor with the concurrence of the planning and budget commission, to serve at the will of the said commission.

(2) The director of planning shall coordinate all state planning and programming activities including but not limited to the following general areas: economy; employment; education; social welfare; agriculture; industrial development; commerce and trade; air, water, land transportation and safety; oceanography and water resources; air and water pollution and environmental health; fish and game; housing and urban development; crime and corrections; parks, recreation and cultural development; physical and mental health; public utilities and service.

(3) The office of state planning and programming shall work with the appropriate agencies within the state and advise the agencies on the most effective and uniform planning techniques and methods required for optimum results in developing and maintaining the state plan.

23.012 General function, powers and duties. The department of administration shall have the following functions, powers and duties relating to planning and budgeting:

(1) To prepare, and from time to time revise, amend, extend or add to, a plan or plans which shall be known as the Florida state plan, hereinafter referred to as the plan. Such plan shall be based on studies of physical, social, economic and governmental conditions and trends and shall aim at the coordinated development of the state in order to promote the general welfare and prosperity of its people. The plan will provide long-range guidance for the physical, social and economic development of the state. The plan will consist, in part, of the following:
   (a) The overall long-range goals and objectives of the state government for achieving maximum expansion and growth consistent with these provisions for meeting the additional economic, social and physical demands placed on the state in future years.
   (b) The shorter term specific objectives and plans geared to and consistent with the long-range goals and objectives of the state.
   (c) Annual development programs, including recommended financial schedules, for each of the planning areas.
   (d) Alternate methods of accomplishing long and short-range development plans including recommended financial schedules for each alternate method.
   (e) A six-year schedule of proposed capital improvements: such schedule to be compiled from a six-year schedule of proposed capital improvements submitted by each agency, board, and commission of state government upon the request of the department of administration.

(2) Act as the principal staff agency of the executive branch in planning matters concerning the resources and development of the state and, in this capacity, undertake special studies and investigations.

(3) Provide information to and cooperate with the state legislature or any of its committees.

(4) Study the state's long and short-range programs of public works and capital improvement projects and render advice thereon.

(5) Periodically prepare an inventory of the state's natural resources, and of public and private works and facilities which are deemed of importance to the development of the state.

(6) Cooperate with, assist and supply information to departments and other agencies or instrumentalities of federal, state and local governments, including regional, metropolitan, county, municipal or other local or private planning agencies in the execution of their planning functions with a view to harmonizing their planning activities with the plan.
(7) Advise and provide planning and statistical information as far as available, to civic groups and private persons and organizations who may request such information or advice, and who study or otherwise concern themselves with the state's problems and development, insofar as such problems and development may be relevant to state planning. Also, provide copies for a fee of the long-range state plan to keep the general public informed and foster better planning within the state.
(8) Accept, receive, solicit, and administer in furtherance of its functions, funds and services from the federal government or agencies, from departments, agencies and instrumentalities of state or local government or from private and civic sources, and to contract for the provisions of services related thereto
(9) Exercise all other powers necessary and proper for the discharge of its duties including the promulgation of reasonable rules and regulations.

23.013 Adoption of Florida plan.

(1) Upon the preparation of the Florida long-range development plan and the short-range program and planning elements, or of any substantial phase or part thereof, or upon the preparation of an amendment or revision of the plans or of any part thereof, or upon the preparation of any extension of or addition to the plans, the planning director shall first submit the plans, phase or functional part, amendment, revision or extension thereof or addition thereto to the department of administration sitting with the president of the senate and the speaker of the house for approval and adoption.
(2) Upon being adopted, the department of administration shall file a copy in the department of state and transmit copies thereof to heads of all state agencies and to the state legislature. The department shall make copies thereof available for general distribution or sale. All officials of the state government and its agencies, or officials of the federal government, and other states having an official need for the plans shall upon request be provided copies at no charge.

Other persons, companies, agencies and groups shall pay a fee to be determined by the department. The total fees collected for the sale of these plans will be used in payment of the publishing and distribution cost.

23.014 Annual development program preparation, procedure, content.

(1) The annual development program shall cover at a minimum the forthcoming six years and may consist of the following general sections and present the following information:

(a) A section analyzing the current posture of state development in terms of long-range needs and opportunities of development, together with a review of present factors and activities affecting the development of the state. This section will highlight past accomplishments and the current status of programs and activities, and will review such factors as the overall economic posture of the state, the major problems confronting or anticipated to confront the state, the activities of the private sector, local governments and federal activities as well as state operations designed to meet the responsibilities of overall state development and activities.

(b) A section on specific policies to be undertaken, which will describe the content and emphasis of policies for at least each of the following general functional areas of development: economic development, social development, natural resource development, transportation, regional and local development, other areas of development as appropriate.

(c) A section detailing the programs and the quantified annual accomplishments to be achieved by each program over the forthcoming six years. Analysis of the relationship of these programs to accomplishing policies enunciated in the previous section will be described in detail. New programs, elimination or modification of existing programs and the anticipated performance or accomplishment of current, new, or modified programs will be described in detail in this section.

(d) A section dealing with the methods and requirements for effectuating and implementing the proposed annual development program. Resources required, in terms of funds, manpower, capital facilities and other resources for each year of the annual development program as well as any administrative changes or new legislation required will be described in this section.

(2) Upon request of the department of adminsitration, each state agency shall annually file with the department its plan for each program under its jurisdiction to be undertaken or executed for the next six years. The plan shall include a full explanation of the need and justification for each program, its relationship to other similar programs being carried out by the state, local, federal or private agencies, the annual anticipated accomplishment of each program over the prior six years as is feasible. The judiciary and the legislature are specifically excluded from this requirement. The planning and budget director shall submit to the secretary recommendations for the annual development programs based on the information submitted by each state agency and his analysis of developmental needs and requirements.

23.015 Annual economic report. The governor as chief planning and budget officer with the department of administration shall annually render unto the people and to the legislature of this state an economic report appraising the economic situation of the state, reviewing the extent to which economic growth and development has provided employment and income, and such other economic factors and indicators as are appropriate. This report shall contain timely and authoritative information concerning economic growth and development in the state both current and prospective, an analysis and interpretation of such information in the light of existing state economic policies and an appraisal of the various programs and activities of the state in effectuating these policies. Such report shall be related to and developed in close conjunction with the preparation of the annual development program.

23.016 Special reports.

(1) The department of administration shall also submit special reports upon the request of the governor, the president of the senate or speaker of the house on those aspects of state planning and budgeting which may be deemed of current interest. Special reports on major research and planning projects, as distinguished from compilations of current data, shall be made available as soon as practicable after completion.

(2) The department may make copies of special reports available for general distribution or sale. The price of special reports shall be determined by the nature of the special report and the cost involved in compiling and publishing those special reports made available.

23.017 Authorized to contract with private business, industry and public agencies. Whenever in the discretion of the department of administration the above functions and duties become too specialized, professionally demanding or require extensive research facilities not available to the staff provided herein, it may use federal, state, local or private funds received by that office for the purpose of planning to contract with private firms or public agencies for the utilization of the planning or research capabilitie and facilities of such firms or agencies to assist the department in meeting the planning needs of the state.

23.018 Schedule. The department of administration shall establish a schedule for the adoption of the plans under this act; provided that the first annual economic report be adopted in 1968, and the first annual development program be adopted in 1969, unless the department finds that there is not adequate time for their preparation.

STATE BOARD OF EDUCATION REGULATIONS

6A-8.01 Limitations of regulations. The provisions of this chapter apply only to junior colleges organized and operated under the provisions of Sections 230.752, 230.753, and 230.754, Florida Statutes, and shall supersede the provisions of other chapters of regulations of the state board of education, unless otherwise set forth herein.

6A-8.03 Responsibilities of division of community colleges. The division of community colleges is assigned such powers, duties, responsibilities, and functions as shall be necessary to insure the greatest possible coordination, efficiency and effectiveness of junior colleges as defined in Section 228.041(b) and Section 230.751, Florida Statutes. The director shall administer the provisions of Chapter 6A-8, State Board of Education Regulations, relating to junior colleges; administer all state appropriations for the support of junior colleges; provide leadership in the planning, development and improvement of all junior college programs and services; evaluate

and recommend needed improvements in junior college programs and services and in the laws and regulations relating to junior colleges; cooperate with other divisions of the department and other agencies to promote articulation and coordination of junior colleges with other educational programs; and to accomplish the purposes and objectives of junior colleges consistent with the total educational goals of the state.

6A-8.10 Preparation and certification of junior college budget. Each fiscal year a budget shall be prepared for each junior college in accordance with Section 230.769, Florida Statutes, on such forms and in the manner prescribed by the commissioner. The budget shall be prepared for the general current fund, the restricted current fund, the unexpended plant fund, and the debt service fund.

The commissioner shall prescribe on or before January 1 of each year the forms and the budget instructions which the junior colleges will follow in preparing and submitting their budgets. The budget shall be submitted to the director in duplicate on or before June 1 of each year and shall be certified as official by the original signatures of the president and chairman of the board. (Revised 12-19-70)

6A-8.101 Examination of junior college budget. The director or his authorized assistants shall examine each junior college budget for (1) completeness, (2) correctness, (3) conformity with law and regulations, (4) preparation in accordance with commonly accepted educational and fiscal principles, and (5) inclusion of the required local contribution. The following items shall be observed in examining and reporting recommendations relating to junior college budgets.

(1) No receipts shall be included in the budget unless there is reasonable evidence that the amount budgeted will be received.

(2) When it appears that too large or too small a portion of the total appropriation is budgeted for any item the director shall recommend the proportion which appears to be justified or shall request an explanation of the necessity for the amounts so appropriated.

(3) No transfer from the general current to the unexpended plant fund shall be approved if such transfer would unduly handicap the current operation of the college.

(4) The total amount of reserve for contingencies that may be included in the general current fund budget shall not be in excess of two percent (2%) of the total amount available for appropriation.

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