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ABSTRACT

The purposes of the Teacher Education Project Study at Jarvis Christian College were to investigate the relevance for small developing colleges of the new models for elementary education and to stimulate the adoption of the systems approach to institutional development in general. A 12-member Project Task Force composed of Jarvis faculty, students, and administrators began its work by meeting periodically to review the summaries of the nine models available in spring 1969. Further activities of the Task Force included on-site visits to relevant experimental and demonstration projects, systems analysis of Jarvis, simulated experimentation in model building and cooperation with the original model builders and the Consortium of Southern Colleges for Teacher Education in model refinements and/or development. The most important conclusions are a) that Jarvis Christian College purposes might be more effectively met by the adoption of systems methods in each area of the college's operation, b) that the Teacher Education Program or "new models" program has relevance not only for departments of education but also Arts and Sciences and higher education, and c) that a total institutional thrust is required in the reconstruction of teacher education or any other system component. A list of recommendations, a 34-item bibliography and appendixes are included. (Author/MJM)

FINAL REPORT

PROJECT NUMBER: 9-8044

CONTRACT NUMBER: OEG-0-9538044-4317(010)

June 30, 1969 to June 30, 1971

# IMPLICATIONS OF OFFICE OF EDUCATION BUREAU OF RESEARCH TEACHER EDUCATION PROJECT FOR DEVELOPING INSTITUTIONS

E. C. Powell
Jarvis Christian College

Hawkins, Texas 75765

June 30, 1971

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Organization and Administration Studies Branch,
National Center for Education Research

## PREFACE

The study reported here is only one of many efforts at Jarvis Christian College to improve its ability to serve the higher educational needs of our society. Jarvis has been aware of the need to understand objectively the overt and covert functions of dynamic college and university systems. We hope that this report will contribute to such an understanding.

The study was conducted from a systems orientation. It is not, however, a model of the application of systems theory to education. Systems principles were often violated during the project period. The motivating factor behind this project was not the fact that financial resources to higher education are not expanding at the same rate as educational needs. As a College committed to providing those with few life chances with relevant and effective learning opportunities, Jarvis' mission has never been adequately supported. Notwithstanding, the lack of necessary support services, etc., students had to be educated and they were. Now, times are more dynamic and new and more relevant college systems are demanded.

We wish to express our appreciation to the Task-Force and the other student, faculty, support personnel and alumni who worked long hours on this study. Many of them are listed in the appendix. Our special thanks go to Professor J. P. Jones, Professor Cecil Clift, Dr. Lorine Holmes, Ms. Dorothy Lanier, Mr. C. Abungo, Ms. S. Hilliard, Ms. Mary Wellmon and Dr. Senda Yaden. Having done extensive institutional research on Jarvis since 1964, Mr. Jones was most valuable as a source of information on the administration and management functions of Jarvis. His questions about the "new models" from a humanistic tradition were the most difficult to answer. Mr. Clift managed much of the research. His analytical ability was invaluable. The others listed above did either institutional research or experimented with model building.

E. C. Powell, Ph.D.
Project Director

L. M. Lanier, Ph.D.
Associated Director

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O E ORGANIZATION AND ADMINISTRATION STUDIES BRANCH,
NATIONAL CENTER FOR EDUCATION RESEARCH

# PROGRESS REPORT OF EXPENDITURES

| 1. Contractor or Grantee | 2. Contract Number |
|---|---|
| Jarvis Christian College | OEG-0-9538044 (010) |
| | 3. Contract Period<br>July 1, 1969 to June 30, 1971 |
| | 4. Amount of Contract<br>$17,200.00 |

| 5. Expenditures | Federal | Non-Federal | Total |
|---|---|---|---|
| A. DIRECT COSTS | | | |
| Personnel Salaries | 3,534.92 | 5,946.00 | 9,480.92 |
| Travel | 6,564.73 | 250.00 | 6,814.73 |
| Supplies & Materials | 5,181.02 | 2,113.00 | 7,294.12 |
| Communications | 192.32 | 200.00 | 392.32 |
| Services (Duplicating and Reproduction) | 1,127.00 | 1,100.00 | 2,227.00 |
| Final Report Production | 600.01 | 300.00 | 900.01 |
| B. INDIRECT COSTS | -0- | 2,000.00 | 2,000.00 |
| C. TOTAL EXPENDITURES | 17,200.00 | 11,909.10 | 29,109.10 |

| 6. Cost Sharing or non-Federal Funds | Amount |
|---|---|
| Jarvis Christian College | |
| Total | 11,909.10 |

7. Interest Earned on Federal Funds

8. Certification

I/We certify that the foregoing information is true and correct, and that all expenditures were incurred solely for the purpose of the above numbered contract.

| | | |
|---|---|---|
| Project Director | Name E C Powell | Signed |
| | Title Dean of Instruction | Date June 30, 1971 |
| Budget Officer | Name J. F. Brasfield | Signed |
| | Title Coordinator, Federal Programs | Date June 30, 1971 |

ABSTRACT

A Jarvis Christian College Task-Force did an in-depth study of the NCERD Teacher Education Project Reports, made on-site visits to relevant experimental and demonstration projects, led systems analysis of Jarvis, stimulated experimentation in model building and cooperated with the original model builders and the Consortium of Southern Colleges for Teacher Education in model refinements and/or development.

The most important conclusions are:

1. That the Jarvis Christian College purposes might be more effectively met by the adoption of systems methods in each area of the

2. That the NCERD Teacher Education Project or "new models" program has relevance not only for departments and colleges of education but also Arts and Sciences and higher education in general.

3. That a total institutional thrust is required in the reconstitution of teacher education or any other system component.

A list of recommendations are included for Jarvis, developing institutions, the public sector and private sector with reference to process and procedural reforms, changes in program development, curriculum and instruction.

## CHAPTER I

## INTRODUCTION

In 1967 the United States Office of Education issued a request for proposals on educational specifications for comprehensive undergraduate and in-service teacher education programs for elementary teachers. In 1968 from the 80 proposals which had been submitted, the Bureau of Research awarded a contract for a new model of teacher education to Florida State University, Michigan State University, The Northwest Regional Educational Laboratory, Syracuse University, Teachers College of Columbia University, The University of Georgia, The University of Toledo, The University of Pittsburgh and the University of Massachusetts. In 1969 the nine funded institutions filed their, respective, phase I reports in which each described a new model for education of elementary teachers. Common to all of the models was the application of systems theory and methods to program design, management-system design, evaluation-system design and support-services design. (See 4, 24)*

Phase II of the Bureau's major efforts to stimulate the updating and the reconstitution of elementary teacher education programs involved both large developed institutions and several of the original nine phase I-funded institutions to study the feasibility of developing the necessary materials, modules and systems for making the model described in their phase I report operational. At about the same time, small contracts were awarded to ten developing colleges and universities to study the implications of the phase I reports for their own model development. Jarvis Christian College was among the ten developing colleges and universities awarded contracts. (29)

While the other institutions funded seemed to have focused upon the development of elementary education models, Jarvis proceeded from the assumptions that (1) the appropriate level of system development would be the total college, and that (2) a new model for teacher education as a subsystem within a reconstituted college system would be its goal.

The Jarvis Christian College Bureau of Research funded Teacher Education Project is a part of a total plan and commitment of the College to greater service to democratic

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*Bibliographic References, numbers 4 and 24

institutions through more relevant, flexible, economical, and effective education of learners. The College believes that the U.S.O.E. Bureau of Research Teacher Education model-development program and other efforts to introduce research-based change into higher education are stimulation for positive change in teacher education and in arts and sciences areas among developing institutions.

Jarvis Christian College, a private church-related developing four year Arts and Sciences college, is accredited by the Southern Association of Colleges and Schools. Its teacher education programs are approved by the Texas Education Agency.

The general aim of the College is to provide a relevant and effective educational program in an environment designed to release the creative potential of its students. The philosophy and objectives of the College, discussed in the section on Goals and Rationale, provide the perimeters and directional limits within which degree programs develop and operate.

The College is organized into four basic Divisions:
Humanities
Physical and Life Sciences and Mathematics
Social and Behavioral Sciences
Teacher Education

Each Division offers courses in several disciplines with one or more minor and major concentrations. In cooperation with the Division of Teacher Education, the three other Divisions each offers one or more major or minor programs to prepare teachers.

Major and minor programs at the College lead to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Education. At present, programs are designed upon a base of sixty-three hours of general education or academic foundations.

The Jarvis' program has been responsive to socio-cultural and economic changes as well as to developments in available knowledge in educational theory and methods and in technology. During the last five years, as in previous years, the program has changed in response to the needs of its students.

Begun as a co-educational institution for Negro youth, Jarvis has for some time been open to all ethnic and social groups. Traditionally, however, its students have been predominantly working-class black and disproportionately female. They have come primarily from the Southwest or from the deep

South. Of this larger group, the majority have come from Texas, more specifically from Northeast Texas. Approximately one-fourth of the students, however, are from outside Texas, and approximately one-half of these students come from families with annual incomes below $3,000.

Graduates of Jarvis have assumed posts of service in both rural and urban areas--in government, in business and industry, and in the professions. The rate of earned doctorates among Jarvis' graduates is higher than eight per thousand.

The faculty and the administration have been strengthened partly through recruitment and partly through in-service improvement made possible by such resources as those of the Esso Foundation and the Ford Foundation. The Fall 1970 enrollment of 703 students represented an all-time high.

Moreover, in addition to the removal or razing of older frame structures such as the Physical Education Building, Woolery Courts, the Commons Building, and some older faculty housing, recent years have brought improvements in campus lighting, roadways, and sewage facilities (1965-67); the completion of the Olin Library and Communication Center (1966); the up-dating of the Campus Master Plan (1969); the completion of the Meyer Science and Mathematics Center (1969); the completion of Phase I of Faculty Housing (1970); the completion of four new dormitories along with a section of the Women's Commons Building (1970); and partial renovation of the Emma B. Smith Building (1970).

Over the years, the most significant curricular changes at Jarvis have been those related to the transition from an elementary program to a collegiate one and to the elimination of the Agro-Industrial program to concentrate energies and resources upon the four-year program. Curricula have traditionally been those in the liberal arts and in teacher training. In recent years, some seminars, short-term courses, and Saturday programs have been conducted primarily for adults in the surrounding communities.

Requirements have recently been modified to permit independent study and experimentation in topical seminars. Through these means, experiences in black studies have been provided. The increasing availability of newer instructional media, including television for micro-teaching and for speech classes, has brought about limited changes in course content and technique.

In 1969 Jarvis had just completed the first ten-year phase of planned development and change. During that ten-

year period, several self-studies for the College in general were completed. The main focus of a number of the studies was the future role and scope of teacher education. The implementation of the resulting recommendations has strengthened the role of the College in school personnel development.

Development during the ten-year period included (a) the first phase of a Master Building and Capital Improvement Plan, (b) management improvement projects, such as a manual of Operating Procedure for Planning and Budgeting in 1969 and a Management and Operations Manual in 1968 (revised in 1969), (c) long-range planning and administrative reorganization, and (d) faculty and staff development in-service institutes and study leaves designed to increase instructional skills and to improve curricula offerings and special services to students isolated from normal opportunities in American life. (16).

Under the impact of demographic variables, changing occupational roles, new developments in decision making, management and instructional systems, emerging youth ideology, Black awareness, and the increased visibility and voice of the poor, change became imperative. The traditional patterns and structures no longer provided the means of economically fulfilling the stated objectives of the College. New flexible, relevant systems were demanded.

## CHAPTER II

## GOALS AND RATIONALE

### Purposes of the Study

The purposes of the Teacher Education Project Study at Jarvis Christian College were to investigate the relevance of the new models for Elementary Education for small developing colleges and to stimulate the adoption of the systems approach to institutional development in general. The study of new methods and missions lead to the consideration of the college purpose.

### College Purpose

In these times, almost all colleges and universities have found it necessary to reassess their goals and directions. To arrive at some realistic statements of purpose, many of these institutions have utilized the Q-Sort technique.

In 1970, the Jarvis Christian College Self-Study Committee on Purpose administered an eighty-item Q-Sort to all trustees, students, faculty, staff, administrators and to a sample of Jarvis alumni. The data and the interpretations from the Jarvis College Purpose Q-Sort provided the basis for the following statement of purpose.

> The purpose of Jarvis Christian College shall be to provide adequate opportunity, in the context of the Judeo-Christian ethic, and within the limits of its published programs, for the maximum development of all its students. (15).

Jarvis takes the position that the Campus atmosphere should encourage open discussion between administration and faculty, between administration and students, and between faculty and students; and the institutional environment should permit challenge without recrimination. The College fosters the art of communication with recognition of personal dignity and respect for individuality. It attempts to afford each student an opportunity to recognize the

ethical values which affect the individual, the community, the nation, and the world.

The College provides opportunities for each student to realize educational growth within his or her determined goals, whether those goals involve a four-year liberal arts program or a two-year vocational training program. Areas of specialization enable a student to master the fundamental language, nomenclature, skills, and practices of an academic discipline.

Jarvis makes available adequate counseling and guidance in relation to social, educational, and economic problems within the academic environment. In addition, the College fosters programs of youth participation in community service which will suggest directions for the present and the future use of leisure time.

The College holds open for modification, within the changing patterns of society, its own academic and administrative processes. It seeks to inculcate respect for our nation and its subdivisions. It affords opportunities for each student to create and to evaluate a public sense of responsibility. To these ends, the College provides the following opportunities for its constituents:

1. To receive a well-balanced education in the arts and sciences leading to a baccalaureate degree.

2. To become acquainted with their cultural heritage in all of its diversity.

3. To acquire a foundation for further educational development.

4. To identify and develop maximum potential in the pursuit of academic excellence.

5. To become logical, creative, and independent thinkers.

6. To develop skill and ability to communicate effectively with others.

7. To obtain adequate guidance in selecting and preparing for a profession or a vocation.

8. To prepare themselves for competent performances as teachers.

9. To participate in a democratic society in a manner designed to improve the society and

the opportunities of its members.

10. To become worthy citizens with proper concepts for promoting good family and community living.

11. To prepare, through participation in religious studies and activities, for capable leadership in the churches. (15).

Through the offerings of its Divisions, the College provides a standard set of programs in the Arts and Sciences and in Teacher Education. Moreover, in performing its distinctive role, the College gives attention to students from deprived areas and limited economic backgrounds.

Within the offerings of the Divisions, or associated with these offerings, the College provides laboratories, special facilities and media, and adjusted schedules. In addition, through Operation CRAM, the College provides enrichment opportunities and self-motivating learning experiences to facilitate the transition from secondary school to college.

The present enrollment of Jarvis represents a range of socio-economic attainments, a range which seems likely to widen as time passes. At the same time, Jarvis has, from the date of its founding, accumulated experience in assessing the potential and meeting the needs of the economically deprived and the socio-culturally unique American. Moreover, although the College does not limit the enrollment to the latter group, nearly all of its present student population is black, and approximately half of the students are representatives of families with annual incomes below $3,000.

Under these circumstances, the Jarvis faculty, administration, and Board take the position that, for the immediate future, a distinctive role for Jarvis will be to make available to all of its students opportunities for a quality and relevant college education. The three groups agree that emphasis on quality and relevant education at Jarvis will continue to increase. Present affiliations and consortium arrangements are indications of their commitment to this position.

The purpose of the College was critically reviewed as a part of a 1965 Institutional Self-Study. The resulting revised statement was approved by the Board. This phase of the review of purpose, particularly in relation to fulfillment, was not completed until the College was accredited in 1967 by the Southern Association of Colleges and Schools.

Between 1965 and 1970, no further changes were made in the official statement of purpose. The statement came under scrutiny on several occasions during this period, however; and specific aims and objectives were modified.

In the 1967-68 school year, for example, every operation of the College came under examination when a Management and Operations Notebook was prepared and when manuals or handbooks were prepared or revised.

During the same year, the role and the scope of the College were examined in relation to reports submitted to the Academy for Educational Development and to the Coordinating Board of the Texas College and University System. The role of the College was considered in relation to the roles of institutions of higher education throughout the country, to those of black colleges generally, and to those of public and private colleges in Texas. As a part of these reports, the College undertook its first formal exercise in long-range planning.

In both 1968 and 1969, in connection with applying for reapproval of its Teacher Education Program, the College prepared reports addressed to the Texas Education Agency, the Board of Examiners and the State Board of Education. Through specific aims and objectives, the purpose of the College was correlated with educational foundations, professional education, and the respective subject matter specializations. The roles and functions of the Board, the faculty, the administration, and support services were examined as one step preliminary to the subsequent reapproval of the program.

Each new building constructed, or proposed for immediate construction, has been carefully considered in relation to its function in achieving the purpose of the institution and the performance objectives associated with present standard or experimental programs. A constantly evolving Master Plan has been a project of the Jarvis Board and administration with the assistance of the faculty and students and the architectural firm of Benson and Associates. In 1969, with the assistance of the Educational Facilities Laboratories, the Master Plan was revised and updated, resulting in the Campus Development Plan.

In 1969 also, all segments of the College participated, along with the firm of Peat, Marwick, Mitchell and Company, in the preparation of Operating Procedures for Planning and Budgeting, a systems-orientated plan for the annual review of programs and services as they related to the purpose of the College. Job descriptions and procedures for non-

academic personnel were later presented in the Salary Administration Plan.

## Purpose of The Teacher Education Division

Teacher education programs have the primary aim of preparing competent, open and self-motivating teachers who are able to serve learners well either in traditional or in non-traditional schools. Through its programs in physical education, the Teacher Education Division proposes both to contribute to the physical and mental well-being of Jarvis' students and to develop basic habits and skills important to their health in the future. Likewise, it proposes through its Teacher Education Council, composed of representatives from each Division of the College and from the public school systems, to insure that its programs are relevant to today's schools.

In specific subject-matter areas, the aims of the Teacher Education Division are those of the other Divisions of the College, with which it works cooperatively in the preparation of elementary and secondary teachers. In educational theory and practice, it proposes to provide the experiences, observations, simulations, and learning-situation techniques necessary to insure effective teaching performance. During the course of the Self-Study, each Division and each support service examined its objectives in relation to the old and the new statements of purpose. With the newer statements of purpose from the Division of Teacher Education and the Teacher Education Project Study, it can be concluded that the objectives of the Division are in harmony with the presently stated purpose of the College.

## CHAPTER III

## METHODOLOGY AND CENTRAL CONCEPTS

### The Jarvis Task Force

A twelve-member Project Task Force, composed of Jarvis' faculty, students, and administrators, began its work by meeting periodically to review the summaries of the nine models available in the spring of 1969. The system devised to insure maximum utilization of the Phase I reports allowed each person in the Task Force to choose by chance one complete model other than the three models chosen for intensive study and evaluation. The Massachusetts model, the Syracuse model, and the Michigan State model were studied as total systems with a special emphasis on the components most closely related to the member's scholarly preparation. Small group interaction among Task Force members provided opportunities to "brainstorm" and clarify concepts before total Task Force discussions and planning meetings.

At the Durham Conference on "Implications of the Bureau of Research Teacher Education Project for Developing Institutions" in June of 1969, the Jarvis' representatives indicated that Jarvis would concentrate its intensive study on the University of Massachusetts model, the Syracuse University model, and the Michigan State University model. The selection of models for study did not reflect in any way any negative evaluation of the remaining six federally-funded models. The size of the grant, the possibility of interinstitutional cooperation in model building among other developing colleges and universities and limited time for intensive study precluded the formal study of not more than three Phase I documents.

### Site Visits

As the study continued, site visitation began. The Task Force was basically concerned with (a) the model development process, (b) special instructional materials, services, and facilities, (c) current related programs or facilities in other schools or colleges of the university, and (d) the degree of commitment of the university to implement its own model.

Two of the three site visits were completed in September, 1969. The first visit was to Syracuse University where ten Task Force members spent two days with the Project Director, Dr. W. Weber, and with project personnel and key administrative leaders.

The visit to Michigan State University was planned in cooperation with Xavier University of New Orleans. During this visit, Jarvis and Xavier were joined by Norfolk State College in a two-day conference with Project Director, Dr. Robert Houston, the project personnel, and major administrative leaders. The same ten Jarvis Task Force representatives visited both Michigan State University and Syracuse University.

Nothwithstanding the lack of opportunities to visit the University of Massachusetts, at least five Task Force members interviewed Dr. J. Cooper and other members of the Massachusetts development team during conference dealing with the program models.

## Other Visits and Sources

In addition to the on-site visits to Phase I universities and interviews with the University of Massachusetts model builders, the Task Force maintained very close contracts with all of the original nine federally-funded model builders, the University of Wisconsin model builders, and the other nine federally-funded model builders from developing colleges and universities.

These contracts were facilitated by conferences of workshops convened by the United States Office of Education's National Center for Educational Research and Development, the various clusters of the TTT Programs (Training the Trainers of Teachers), The American Association of Colleges for Teacher Education, The Texas Education Agency, and the Consortium of Southern Colleges composed of the ten developing colleges and universities funded during Phase II of the "New Models Development."

Special visits to experimental public schools were made by some Task Force members. Among the schools visited were the World of Inquiry School and The Satellite School in Rochester, New York, and The John Glenn School in San Angelo, Texas. In brief, insights relevant to the successful completion of the present study were obtained from a large number of educational leaders representing all types of educational institutions. (See Appendix A).

## Systems Analysis

Jarvis Christian College completed in early 1971 a systems analysis or institutional self-study as a member of the Southern Association of Colleges and Schools. In order to coordinate the Task Force activities with the total institutional analysis and the completion of the Phase II reports submitted by major universities, a PERT network was developed and followed.

During the total College Self-Study, the individual members of the Task Force for the Teacher Education Project were active members of the institutional self-study committees in research or leadership roles. The Director of the Self-Study and the Chairman of its Steering Committee were members of the Task Force.

Committee lists for 1969-70 (See Appendix B) adequately indicate the degree of faculty involvement, but subsequent sections of this report must be examined for indications of additional involvement of students, the Administration, and the Board at every stage.

Building on the initial experiences of the Task Force, preparatory efforts for the Self-Study included initial exploratory actions by an *ad hoc* group appointed by the President of the College in the summer of 1969. Three members of the Steering Committee attended a workshop sponsored by the Southern Association of Colleges and Schools in September of 1969, and the Director of the Self-Study attended a second workshop in November of that year. Tentative Self-Study schedules, made earlier in the year, were revised. Questionnaires were drawn up and distributed. Meetings of the principal committees were scheduled on a regular basis. Lists of documents and resource materials were collected or drawn up and distributed. A central office and a central file were established.

## Change Agent Development

The role of the change agent seemed to require an intimate knowledge of existing educational structures, patterns, and systems (including human resources), a strong commitment to Jarvis as a relevant and effective institution or socio-educational system, an acute awareness of the implications of present trends for the future, and a willingness to expose himself to research-project information with which he was not familiar.

The strategy agreed upon and executed was that (a) each member of the Task Force studied one or more Phase I reports and other related literature, (b) the Task Force, when feasible, made on-site visits to selected Phase I universities and attended related conferences and professional meetings through departmental travel funds, (c) on campus consultants were used sparingly until home and field work had been accomplished, (d) large groups, small groups, and individual intra-campus information conferences were held periodically but especially after on-site visits, (e) suggested system changes were reported to and discussed with the Teacher Education Council as progress was made, (f) informal reports were made to the constituents of the College, (g) self-study or systems-study committees were supplied materials and Task Force findings on the strengths and weaknesses of the College's sub-systems, and (h) the study of and the experimentation with the system approach to development were stimulated.

## Change Motivation

Over seventy-five per cent of the faculty were involved in short in-service institutes on Sensitivity Training, Programmed Instruction, Instructional Television, Instructional Technology, writing behavioral objectives, and module construction. Understanding the importance of a system analysis, the Task Force delayed formal suggestions of sub-system changes until sub-system or self-study committees had documented the strengths and weaknesses of the College in areas affecting the elementary education program.

Internal dissemination of information about systems began with the fall semester (1969-70) Jarvis Faculty-Staff Institute. Dr. William Joyce of Michigan State University presented the basic concepts represented in all of the Phase I models. Since that time (a) several special model-related convocations of the total student body, faculty, staff, and administration have convened, and (b) at least six college faculty meetings and many more small group discussions involving students and/or faculty and repeated individual conferences were devoted to the intra-college dissemination of system-approach information.

Interest and activity in developing new education models was not confined to the Teacher Education Council and to the Division of Teacher Education but was extended to the Arts and Sciences Divisions as well.

## Central Concepts

1. System. In general, a system is a set of interrelated sub-parts of any nature which function in relationships between and among each other. Functionally, when the sub-parts either through their individual efforts or through their collective capacities receive inputs from non-members of the set, they act upon the inputs through intra-set operations. With such action, the inputs are modified to form some product. Thus, size and complexity of the network among set members is not the determinant of a system. Rather, it is the interactions of two or more sub-parts resulting in some product which determines a system. (2, 6, 7, 11).

2. Sub-system. If a sub-set of objects functions together to produce some product from inputs which it receives from outside of its membership through or from the larger group of which it is a member, it may be viewed as a sub-system.

3. College System. A college is a system. It is composed of a set of definable departments and internal interactional networks or sub-systems designed to perform, individually and/or collectively, specifically assigned functions which contribute to the purposes of helping students to achieve learning goals, to do research, and to provide selected services to society. The management subsystem seeks as inputs from outside the college required physical facilities anf financial resources to maintain and develop the system. As a part of its role in maintaining and developing the system, it seeks highly skilled and educated personnel to perform roles within the various subsystems open due either to exits from the system or to system expansion. Each of the other sub-systems utilizes the facilities and resources provided by the management sub-system to provide an effective communication network and an over-all learning, teaching, research, and service environment through which students increase their performances to a level high enough for their official exit from the system at graduation.

4. Module. A module is a sub-part of a system or a sub-system with which some definable function may be identified. A set of modules joined together in some logical manner to achieve some purpose defines a system or a sub-system.

In this report, a module is a unit of curriculum conceived of as an independent entity containing (1) a learning objective, (2) resources required to achieve the objective, (3) a public procedure for determining when the objective

has been met, and (4) some indication as to where it fits into one or more of a series of learning experiences.

5. Component. A component is any sub-part of a system. In this report, a component is viewed as a system of modules forming a sub-system of curriculum within a minor or major program. The student-teaching component of the teacher education program consists of a system of modules dealing with the actual application of professional knowledge and skills to learning situations involving children in an elementary or secondary school setting.

CHAPTER IV

ADMISSIONS

## College Admissions

Control and Administration of Admissions. The Jarvis' faculty establishes the admissions policies of the College. Requests for policy or policy change, which usually originate in the Admissions Committee, are deliberated and acted upon by the Academic and Credits Committee. Proposed changes are then presented to the faculty for action.

The operational control and administration of admissions is a delegated responsibility of the Admissions Committee, acting through the Director of Admissions.

The Admissions Committee is composed of the Director of Admissions, the Director of Recruitment, the Registrar, the Director of Placement, the Director of Public Information, the Dean of Student Affairs, the Dean of Instruction, two students, and two faculty members. The chairman of the Admissions Committee is a member of the faculty.

The Director of Admissions admits or rejects applicants on the basis of the policy and criteria published and interpreted by the Admissions Committee. In exceptional cases the Committee may act directly or may permit the Director of Admissions to allow matriculation. The admissions process is direct and uncomplicated. The work of the Committee and the staff in administering the process described has followed established policy adequately.

Matriculation at Jarvis is free from limitation on the basis of race, creed, or ethnic background. The College is committed to the active recruitment of capable and talented youth, wherever they may be found. At the same time, Jarvis and similar colleges have had ample experiences with students who have succeeded despite unpromising backgrounds or test scores. Jarvis is, therefore, more willing than some colleges to admit students who show promise of ability to profit from the experiences provided by the College.

## Testing and Prediction of Success at Jarvis

Some studies are in process and others are projected at Jarvis to indicate more clearly the effective indices of ability to profit by the educational program of the College. Typical indices account for too small an amount of the variation in achievement.

Present evidence indicates that a combination of high school grades and American College Test scores, though insufficient, provides the best available college-admission index. In Table 1, these basic forms of evidence and their sub-parts are correlated with first-term grades at a significant level above zero. The correlation between subscale scores and first-term grades range from slight to moderate. Only the "English" scale of the ACT accounts for more variation in college grade point average than high school grades, when compared by subject areas.

Once a student is on campus, a number of diagnostic instruments and experiences may be utilized to increase the probability of goal attainment.

The report from the American College Testing Program (Class Profile Service) indicates to the College the percentage of applicants who wish extra help in choosing a major and in improving skills in reading, mathematics, writing, and studying. This year (1970-71) the probability that a student will obtain a grade of 'C' of higher is indicated by selected fields for each applicant. This new information makes the test results more useful in counseling.

The SCAT has been used to assign students to appropriate class sections in English and mathematics. The Nelson-Denny is utilized to reach the same objective in reading.

The attrition and retention rate of the 1968 entering freshmen class is indicated in Table 2 by type of admission and semester. Conditionally admitted students had a higher attrition rate than did those admitted as regular first term freshmen. The percentages of attrition are larger between academic years than within academic years. The regular freshman student has about 58 chances out of 100 of being at Jarvis during the fourth semester; the student admitted conditionally has about 43 chances out of 100 of remaining for the fourth term.

The degree of success of the admissions policy is seen in Table 3. This table compares the number of freshmen with the number of graduates four years later. Comparing the

TABLE 1

NATURE AND DEGREE OF ASSOCIATION BETWEEN PREDICTIVE INDICES AND FIRST TERM COLLEGE GRADE POINT AVERAGE BY SUBJECT AREA

| | ENGLISH | | MATHEMATICS | | SOCIAL STUDIES | |
|---|---|---|---|---|---|---|
| | ACT Score | High School Grade | ACT Score | High School Grade | ACT Score | High School Grade |
| r | 0.465 | 0.333 | 0.232 | 0.241 | 0.372 | 0.474 |
| R | | | | | | |
| Level of Significance | 0.01 | 0.01 | 0.05 | 0.05 | 0.01 | 0.01 |
| Nature of Association | Moderate | Low | Slight | Slight | Low | Moderate |
| Coefficient of Deter. | 21.6 | 11.0 | 5.4 | 5.8 | 12.8 | 22.5 |
| Standard Error of Estimate | | | | | | |

TABLE 1 (cont'd)
Page 2

| | NATURAL SCIENCE | | AVERAGE SCORE | | MULTIPLE | |
|---|---|---|---|---|---|---|
| | ACT Score | High School Grade | ACT Score | High School Grade | ACT Score | High School Grade |
| r | 0.191 | 0.309 | 0.451 | 0.480 | | |
| R | | | | | 0.502 | 0.514 |
| Level of Significance | 0.05 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Nature of Association | Slight | Low | Moderate | Moderate | Moderate | Moderate |
| Coefficient of Deter. | 3.6 | 9.5 | 20.3 | 23.0 | | |
| Standard Error of Estimate | | | | | 0.599 | 0.594 |

TABLE 2

ATTRITION AND RETENTION RATE OF FALL 1968 FRESHMEN BY SEMESTER AND TYPE OF ENROLLMENT IN PERCENTAGES

| | 1968-69 | | | | 1969-70 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fall | | Spring | | Fall | | Spring | |
| | Regular | Conditional | Regular | Conditional | Regular | Conditional | Regular | Conditional |
| Total Number | 156 | 42 | 145 | 36 | 103 | 23 | 90 | 18 |
| Retention Rate | 100.00 | 100.00 | 92.94 | 85.71 | 66.02 | 54.76 | 57.69 | 42.85 |
| Attrition Rate | - | - | 7.06 | 14.29 | 33.98 | 45.24 | 42.31 | 57.15 |

TABLE 3

FRESHMEN: GRADUATION AND ATTRITION, 1960-70

| Year | Number | | Per Cent | |
|---|---|---|---|---|
| | Freshmen | Graduating | Attrition | Graduating |
| 1960-61 | 125 | - | - | - |
| 1961-62 | 196 | - | - | - |
| 1962-63 | 376 | - | - | - |
| 1963-64 | 235 | 43 | 65.6 | 34.4 |
| 1964-65 | 92 | 44 | 77.6 | 22.4 |
| 1965-66 | 175 | 72 | 80.9 | 19.1 |
| 1966-67 | 215 | 66 | 71.9 | 28.1 |
| 1967-68 | - | 65 | 29.4 | 70.6 |
| 1968-69 | - | 50 | 71.4 | 28.6 |
| 1969-70 | - | 81 | 62.3 | 37.7 |
| Total Average | 202 | 60.1 | 70.2 | 29.8 |

number of graduates with the number of freshmen who entered four years before indicates a percentage range from 19 in 1966 to 71 in 1968. The seven year average is 29.8 per cent.

Additional evidence concerning the effectiveness of Jarvis' admission policies is indicated by the activities of alumni since graduation. A significant number of alumni have continued formal study in professional and/or graduate school. Although employment in education remains the principal activity, more Jarvis' alumni are being employed in business, industry, government, and service organizations.

## Teacher Education Admissions

At the present time, there are two formal stages of admissions to the teacher education program at Jarvis. Students who wish to be certified to teach make special application for admission into the teacher education program during the last semester of their sophomore year. To be eligible for the first stage of formal admission, a student must have completed at least forty-five semester hours of academic foundations with a cumulative grade point average of 1.50 or better on a three point scale. Satisfactory completion of the Lower Division Comprehensive Examination and a personality inventory, completion of a program plan approved by the student's major advisor, and verification of physical fitness from the College physician are also required.

The next stage of admission is approval by the Teacher Education Council to do student teaching. Student teaching is usually done during the Fall or the Spring semester of the senior year. Requirements for admission to student teaching are as follows:

1. Completion of 90 semester hours with a cumulative grade point average of 1.50 or better on a three point scale.
2. Completion of a major portion of the teaching field or academic specialization requirements.
3. Prior admission into the teacher education program.
4. Recommendation from the student's major department.
5. Review by the Teacher Education Council.
6. Recommendation from the Director of Men's or Women's Affairs.

7. A schedule of classes during the student-teaching semester which will permit sufficient time to perform the assignments included in the student teaching component.

## Evaluation and Implications

On balance, the present admissions policies of Jarvis Christian College may be said to be effective. On one hand, some graduates of the College have been quite successful, approximately one percent have been awarded the doctorate. On the other hand, the percentages of graduates about whom we have no information are larger than desired, and need to be reduced.

Students meeting all regular admission requirements generally perform better than students conditionally admitted, as would be expected. Some of the students conditionally admitted, however, have performed better than some of their regularly admitted counterparts.

On one hand, the attrition rate is much higher than desired and should be reduced. On the other hand, the figures do not indicate the number of students--even among the originally high-risk students--who having proved themselves at Jarvis went on to perform successfully at other institutions.

As is true at other colleges, faculty opinions relative to admissions issues have varied widely. Such opinions, however, have been generally favorable. A clear majoring of the respondents in a survey of Jarvis' faculty favored current admission policies, with complimentary statements regarding the opportunities afforded by the College. (See Table 4).

Studies pursued for the first time during this Self-Study should be continued. Unanswered questions need to be investigated. At the same time, changing external and internal factors related to admissions will need to be taken into account constantly.

The predictive value of present test data is better than that of no data, but at best these data only explain approximately 20 per cent of the variation in the academic achievement of students at Jarvis. Efforts are now being made to develop local norms by relating pre-test scores to in-college and post-college criteria. It is expected that the results of such efforts will lead to the reorganization of the predictive testing program.

TABLE 4

Faculty Response to the Question: Do you think that the admission policies of Jarvis are designed to enable the institution to achieve its purpose?

| Response | Number | Per cent |
|---|---|---|
| Yes, to a great degree | 7 | 26 |
| Yes, to a substantial degree | 11 | 41 |
| Yes, to a small degree | 5 | 19 |
| No | 0 | 0 |
| Comments or explanations | 2 | 7 |
| No response indicated | 2 | 7 |
| Total | 27 | 100 |

Moreover, while the success rate of students is lower than desirable, the faculty believes that a higher success rate can be and will be achieved during the next few years. More effective recruitment and admission procedures and the resulting increase in enrollment will provide a necessary numerical base for the more effective utilization of resources.

The College will continue to admit some academically high-risk students since special help for a significant number of students is likely to be needed for several years. A planned shift from remedial courses to more psychologically and educationally rewarding clinical and small group help is being initiated. The mathematics staff no longer offers a remedial course. Both remediation and enrichment are provided through laboratory experiences as a regular part of the instructional program at the same time the student works toward regular degree or graduation requirements. These techniques have proven effective in the CRAM program. Additional techniques, based upon new models designed to enhance learning, are being explored in all Divisions.

The implications of the "new models" for the control and administration of the admissions principles apply to all of the academic Divisions of the College. However, they have special implications for change in operations related to admissions to the Teacher Education Division.

Under a modular system, students who desire to major in Education at their first registration would come under the direct influence of The Division of Teacher Education in a Self and Career Development component. This component

would allow at multiple points for the student to change or develop career goals while work on the component is in progress. The grade point average based upon the number of completed semester hours in General Education need not apply. Attaining the prerequisite objectives by successfully completing the required modules or their equivalences would be all the action necessary by the student. The Teacher Education Council might continue to admit or reject formally persons to certification programs based upon different criteria, but its major functions would be to continue to determine policy and to provide the major linkage between College-directed teacher education activities and the relevant public school situation.

# CHAPTER V

# COLLEGE ENROLLMENT

## Enrollment Patterns

Enrollment at Jarvis has not been stabilized. Between 1964 and 1969, fall enrollment figures fluctuated with an average increase of 11.6 per cent per year. Between the fall of 1969 and the fall of 1970, enrollment increased dramatically from 554 to 703, a remarkable 26 per cent.

Although it is not expected that enrollment will continue to increase at this rate, it is anticipated that the following factors will influence growth patterns in the immediate future:

1. Present dormitories will need to be operated at near capacity.

2. The Campus Development Plan projects the construction of new dormitories in 1973 or 1974.

3. The faculty-student ratio should be modified to approach 1-20.

4. Holding power over freshmen should be increased from approximately 54 per cent to approximately 65 per cent within five years. Facilities, faculty and programs should contribute to this result.

5. Junior-senior ratio should be modified so that the size of the senior class would be approximately 90 per cent of that of the junior class. For the coming year, the senior class ratio would be larger.

The operation of these factors, other factors remaining constant, would provide the basis for projecting student enrollment for the next five years. Table 5 contains the five-year enrollment projections by classes. Since the College has had only one year of experience with enrollment in its new facilities, the fall enrollment for 1972 will provide the first indications of the accuracy of these projections.

TABLE 5

FIVE YEAR ENROLLMENT PROJECTIONS BY CLASSES

| | 1970-71* (Actual) | 1971-72 | 1972-73 (Dorms) | 1973-74 | 1974-75 | 1975-76 |
|---|---|---|---|---|---|---|
| Freshmen | 378 | 424 | 484 | 535 | 575 | 607 |
| Sophomore | 128 | 202 | 241 | 290 | 337 | 374 |
| Junior | 102 | 100 | 160 | 190 | 229 | 269 |
| Senior | 91 | 90 | 90 | 144 | 171 | 206 |
| Special | 3 | 3 | 3 | 5 | 7 | 9 |
| Unclassified | 1 | | | | | |

*Fall Semester

The College also proposes to increase the proportion of students from states other than Texas as well as that from other regions of the United States. Table 6 shows the number and percentage of Jarvis' students by major recruitment areas. Students from Texas Declined proportionately and consistently from a 1965-66 high of 85.5 per cent to a 1969-70 low of 61.5. This proportionate decline of 24 per cent is not fully accounted for by the increase of 22.1 per cent in student enrollment from other states. The proportionate shift is indicative of the intention of the College deliberately to widen the geographic area represented in its student population.

Foreign students who have attended Jarvis during the last five years have come from Africa, Asia and the Virgin Islands. They represent less than one per cent of the total enrollment.

The recruitment program is the responsibility of the Director of Admissions. The program functions within the limits of institutional purposes, objectives, admissions policies, and available resources. Recruitment is done on both a formal and an informal basis. The recruitment officer circulates brochures and information concerning the College and its programs. He and his staff visit high schools, junior colleges, and churches in several states.

TABLE 6

NUMBER AND PER CENT OF STUDENTS BY MAJOR RECRUITMENT AREAS, 1965-70

| Major Recruitment States | 1965-66 | | 1966-67 | | 1967-68 | | 1968-69 | | 1969-70 | | Average | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Per cent | No. | Per cent | No. | Per cent | No. | Per cent | No. | Per cent | No. | Per cent |
| Alabama | 8 | 1.6 | 16 | 3.0 | 28 | 6.0 | 58 | 10.5 | 73 | 13.2 | 36.8 | 7.0 |
| Arkansas | 14 | 2.8 | 19 | 3.6 | 21 | 4.5 | 26 | 4.7 | 33 | 5.9 | 22.6 | 4.3 |
| Louisiana | 14 | 2.8 | 13 | 2.5 | 21 | 4.5 | 30 | 5.4 | 53 | 9.6 | 26.2 | 5.0 |
| Mississippi | 9 | 1.8 | 5 | 0.9 | 4 | 0.8 | 16 | 2.9 | 12 | 2.2 | 9.2 | 1.8 |
| Texas | 425 | 85.5 | 442 | 83.0 | 368 | 79.0 | 371 | 67.3 | 341 | 61.5 | 389.2 | 75.0 |
| Subtotal | 470 | 94.5 | 495 | 93.9 | 442 | 94.8 | 501 | 90.8 | 512 | 92.4 | 483.8 | 93.2 |
| All other Areas | 27 | 5.5 | 32 | 6.1 | 24 | 5.2 | 50 | 9.2 | 42 | 7.6 | 35.2 | 6.8 |
| Grand Total | 497 | 100.0 | 527 | 100.0 | 466 | 100.0 | 551 | 100.0 | 554 | 100.0 | 519.0 | 100.0 |

TABLE 7

NUMBER OF STUDENTS ENROLLED BY MAJOR CONCENTRATION AND DIVISION, 1965-70

| DIVISION | 1965-66 | 1966-67 | 1967-68 | 1968-69 | 1969-70 | Total |
|---|---|---|---|---|---|---|
| Education (Elem. Only) | (113) | (92) | (85) | (83) | (70) | (443) |
| Humanities | (71) | (74) | (56) | (55) | (50) | (306) |
| *Art | 16 | 17 | 5 | 2 | 2 | |
| English | 33 | 35 | 37 | 42 | 36** | |
| *Music | 18 | 17 | 9 | 4 | 10 | |
| Religion | 4 | 5 | 5 | 7 | 2 | |
| Physical and Life Sciences and Mathematics | (93) | (82) | (69) | (83) | (72) | (399) |
| Biology | 55 | 44 | 30 | 43 | 35 | |
| Chemistry | 7 | 3 | 3 | 5 | 5 | |
| Integrated Science | 2 | 2 | 7 | 4 | 1 | |
| Mathematics | 29 | 33 | 29 | 31 | 31 | |
| Social and Behavioral Science | (216) | (268) | (251) | (316) | (329) | (1380) |
| Business Administration | 13 | 51 | 44 | 95 | 107 | |
| Business Education | 74 | 69 | 71 | 60 | 62 | |
| Economics | 10 | 9 | 7 | 11 | 8 | |
| Secretarial Science | 24 | 51 | 31 | 34 | 29 | |
| History | 84 | 83 | 86 | 107 | 106 | |
| Integrated Social Science | 11 | 5 | 12 | 9 | 17 | |
| Residual | 4 | 11 | 5 | 4 | 33 | 67 |
| TOTAL ENROLLMENT | 497 | 527 | 466 | 551 | 554 | 2595 |

*Students beginning in minor areas expect program development on transfer.

**1969-70 year-end registration in English numbered 53. Note: Numbers in parentheses indicate the number of students enrolled.

The success of the recruitment program as shown in Table 6 is evidenced by the 13 per cent average enrollment increase over the past five years. While many colleges were experiencing a periodic decline in student enrollments, enrollment at Jarvis increased about 27 per cent in the fall of 1970.

## Teacher Education Enrollment

The number of students enrolled in the several areas of concentration is listed in Table 7. The number of students enrolled in all professional education programs is not indicated clearly by the present data since the preparation of secondary teachers is a responsibility shared by the Division of Teacher Education with the other academic Divisions. For example, the smaller number of students enrolling in elementary education is due, in part, to better counseling during the first two years of college work and to quality control by the teacher education faculty and the Teacher Education Council. Two areas that have shown notable increases during the past five years and that jointly prepare teachers are history and business education.

## Evaluation and Implications

A more systematic recruitment program is needed. One is needed which will widen the area of enrollment and increase the number of non-blacks and foreign students in the student population. This systematic approach to recruitment along with a set of performance-based and systematically planned programs in which change but not content is institutionalized and in which unambiguous objectives are related clearly at each learning experience in the program-completion process is expected to draw larger numbers of students seeking enrollment.

## CHAPTER VI

## CURRICULUM AND INSTRUCTION

### General Education

The present sixty-three hour program in General Education (Table 8) evolved out of the general education movement of the 1950's through a process of experimentation and implementation followed by periodic examination and revision.

Although revisions have been made in course offerings, course content, and methodology to meet student needs, the basic structure has been stable.

By 1968, USOE funds--secured primarily through the Division of College Support under the Division of Higher Education--had become available to Jarvis. At this time, the USOE's study of ways in which to improve curriculum was beginning to show positive results. Plans were being formulated and progressively refined to create a more relevant, effective, and viable curriculum. In addition, a study of new models for the preparation of elementary school teachers funded by the National Center for Educational Research stimulated the preparation of further plans for the reconstitution of general education.

In 1970, an experimental program based upon a study of student needs was adopted in principle. A review of the relevant literature and on-site visits to exemplary model schools were made by a Task Force consisting of representatives from the Teacher Education faculty and of representatives from other Divisions, support services, the student body, and the administration.

Concomitant with this operation, periodic involvement of both the members of the Task Force and of the entire faculty focused attention upon considering the feasibility and replicability of some of the features of the models for use at Jarvis Christian College. This general sharing of ideas resulted in the initiation, on an experimental and limited basis, of such innovations as modular course components and open-laboratory operations fostering performance-based means of assessment and evaluation.

TABLE 8

GENERAL EDUCATION REQUIREMENTS

| | Semester Hours |
|---|---|
| English | 12 hours |
| Communication | 6 hours |
| World Literature or Survey of English Literature | 6 hours |
| Science | 8 hours |
| (Eight hours selected from the following) | |
| Sc-114, 124-Earth Science | 8 hours |
| B-114, 124-General Biology I & II | 8 hours |
| C-114, 124-General Chemistry I & II | 8 hours |
| P-114, 124-General Physics I & II | 8 hours |
| Mathematics or foreign language | 6 hours |
| (Six hours selected from the following) | |
| Mathematics | 6 hours |
| Foreign Language (intermediate) | 6 hours |
| Social Science | 12 hours |
| His-133-Western Civilization | 3 hours |
| or | |
| His-143-Western Civilization | 3 hours |
| His-213, 223-United States History | 6 hours |
| Gov-213-American Government or Gov-233-Texas and Federal Government | 3 hours |
| Speech (Sp-203a) | 3 hours |
| Humanities (H-203) | 3 hours |
| Religion | 6 hours |
| R-103-Our Christian Heritage | 3 hours |
| Electives in Religion | 3 hours |
| Behavioral Sciences | 3 hours |
| Psy-213-General Psychology | 3 hours |
| or | |
| S-203-Introduction to Sociology | 3 hours |
| Health and Physical Education | 4 hours |
| Academic Electives | 6 hours |
| Personal and Social Adjustment | Credit |
| TOTAL | 63 |

The basic design of the plan is that of the Thirteen College Program associated with the Institute for Services to Education, with improvements added from systems approaches and from the Jarvis' plan of personalization in curriculum offerings.

The modularization of constituent components will determine the final mix. The hours shown in Table 9 are used to illustrate the approximate weights in time and area expected in traditional terms before the content duplication between components is omitted through modularization.

While a portion of the 1971-72 freshman class is involved in the experimental program, the remainder of the class is participating in the basic program.

TABLE 9

EXPERIMENTAL GENERAL EDUCATION PLAN

| Course | Hours |
|---|---|
| Ideas and their Expression | 8 |
| Bio-Physical Science | 8 |
| Social Systems: Their Nature and Dynamics | 8 |
| Mathematics | 6 |
| Humanities | 12 |
| Topics in Philosophy and Ethics | 3 |
| Self and Career Development | 2 |
| Health and Physical Education | 4 |
| Academic Electives | 6 |
| Total | 57 |

## General Education Program Evaluation

The general education component of the total college curriculum meets the needs of the student in a traditionally

orientated Liberal Arts College. It is adequate beyond the minimum level in fulfilling the objectives and purposes of the institution, but it is inadequate for the optimal utilization of time and resources. The planned experimental program will increase effectiveness in the utilization of time and resources through content relevance, individualization and inductive methods of learning and teaching and through allowing students to devote more time to the exploration of areas of interest. The present general education component comprises at Jarvis slightly more than 50 per cent of the graduation requirements. The experimental program will constitute approximately 36 per cent of the total semester hours required for graduation.

## College In-Depth Learning

Opportunities for in-depth learning are provided through two or more major and minor fields associated with each of the four academic Divisions listed in Table 10. The minimum number of hours required for a minor concentration is eighteen, and the minimum number of hours required for a major is twenty-four. Twenty-four semester hours represent the maximum for a minor, with a thirty-three hour maximum for a major. The typical major in arts and sciences requires from twenty-seven to thirty-three hours (See Table 11).

Generally, students majoring in business administration, English, economics, history, religion, secretarial science (office administration) and social science qualify for the Bachelor of Arts degree. Majors in biology, chemistry, mathematics and behavioral science usually qualify for the Bachelor of Science degree. Majors in elementary education qualify for the degree of Bachelor of Science in Education. A student majoring in a field approved by the Texas Education Agency and taught in the secondary schools has the option of qualifying for the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Science in Education.

Students usually complete general education courses, some electives, and introductory courses in major and minor fields during the first two years in residence. In any event, major and minor programs usually have been begun by the junior year. The College attempts to provide, within the limits of its resources, the machinery for an individualized major based upon the special needs of a student, the availability of three sponsors, and the approval of the Academic and Credits Committee.

Within the 124 hours required for graduation, six hours of electives are stipulated in the general education component. Each major concentration includes electives restricted only by areas of option within the discipline or by level of difficulty. Opportunities to make independent choices are

TABLE 10

STANDARD MAJOR AND MINOR OFFERINGS BY DIVISION, 1970-71

| DIVISION | MAJORS OFFERED | MINORS OFFERED | DEGREE |
|---|---|---|---|
| HUMANITIES | English | English | B.A., B.S.Ed. |
| | Religion | Religion | B.A. |
| | | Music | |
| | | Art | |
| | | French | |
| | | Spanish | |
| PHYSICAL AND LIFE SCIENCES AND MATHEMATICS | | Physics | |
| | Biology | Biology | B.S., B.S.Ed. |
| | Chemistry | Chemistry | B.S. |
| | Mathematics | Mathematics | B.A., B.S.,B.S.Ed. |
| | Integrated Science (Physics, etc.) | | B.S.Ed. |
| SOCIAL AND BEHAVIORAL SCIENCES | Integrated Social Science | | B.S. Ed. |
| | Social Science | | B.A. |
| | Secretarial Science | | B.A. |
| | Business Education | | B.S. Ed. |
| | Behavioral Science (Sociology, etc.) | | B.S. |
| | Business Administration | Business Admn. | B.A. |
| | Economics | Economics | B.A. |
| | History | History | B.A., B.S.Ed. |
| | | Political Science | |
| | | Sociology | |
| TEACHER EDUCATION | Elementary Education | Health And Physical Education | B.S. Ed. |

TABLE 11

GENERAL EDUCATION, MINIMUM MAJOR AND MINOR DEGREE REQUIREMENTS IN SEMESTER HOURS, 1970-71

| Degree | General Requirements Hours | Major Field Hours | Minor Field Hours | Professional Education Hours | Degree Requirements Hours |
|---|---|---|---|---|---|
| Bachelor of Arts | 63* | 24 | 18 | - | 124 |
| Bachelor of Science | 63* | 24 | 18 | - | 124 |
| Bachelor of Science in Education (Sec.) | 63* | 24 integrated teaching field of 48 hours without a minor | 24 | 18 | 124 |
| Bachelor of Science in Education (Elem.) | 63* | 18-24 in an academic specialization | 12-18 in an combination of subjects taught in Elem. school | 18<br>18 | 124<br>124 |

Within the General Education Requirements (63 hours) is an option of 6 hours of either Foreign Language or Math-Science in each of the degree plans. *Includes 6 hours of electives. Double counting of some of the general education courses in majors and minors reduces the overall requirements. Actual hours for majors range from 24 to 33 in the arts and sciences.

considered in part to be a recognition of the value of free choices in an open society and in part a recognition of the creative potential of its self-directing individuals.

The system of prerequisites is adequate and reasonable for the present time given the largely typical curriculum design. The system is intended to insure that the student will take courses within a pre-established pattern of difficulty and/or appropriateness for effective learning. The Division Chairmen and individual faculty members are allowed resonable discretionary power to change the order in which courses can be taken.

## Teacher Education In-Depth Learning

The Division of Teacher Education offers a teaching major in elementary education; and, in cooperation with the other Divisions, it offers first and second teaching fields in English, integrated science, biology, mathematics, integrated social science, business education, history, and health and physical education. The Division provides courses in library science and in developmental reading, and it directs the services of the Teacher Education Laboratory and the Reading Laboratory.

## Present Graduation Requirements

The principal requirement for graduation from Jarvis Christian College consists of a minimum of 124 semester hours of course credits in an approved plan. In addition to course requirements, the following conditions must be met in order for a student to graduate:

a. Accumulation of as many quality points (3 point scale) as semester hours.

b. Completion of the last thirty hours in residence. Transfer hours may not exceed sixty-five from a junior college and ninety-four from a senior college.

c. Successful completion of a comprehensive examination near the end of the sophomore year.

d. Completion of the requirements of a "Degree Plan" pursued.

e. Completion of a senior comprehensive examination.

f. Approval by the faculty for graduation.

Students with deficiencies or those who elect the minimum twelve hour load for several semesters may require more than four years for graduation. Students with no deficiences may complete all requirements within a four year period.

## New Model Graduation Requirements

Under a modular self-pacing and personalized system, the model graduation requirements might be stated in the following form:

a. The attainment of a planned number and type of objectives to form a system of verified competencies in one or more disciplines and the completion of a senior comprehensive examination.

b. The completion of the last nine months of learning experiences while officially registered at Jarvis Christian College under the supervision of personel approved by Jarvis.

c. Approval by the faculty and the Board of Trustees for graduation under criteria associated with "a" above.

The self-pacing and personalized system might be expected to allow a larger number of students to complete their degree requirements in less than four years. A larger number of the students who do not complete their degree requirements by withdrawing before the end of four years or after more than four years of residence might be expected to graduate under such a system. Students' actual achievements would be recorded on transcripts in the Registrar's Office once each semester or each summer term. If, for example, a student completed only five modules in an eight-module sequence (X) before withdrawing due to illness or if he completed some other number fewer than the required modules in the "X" program component, then that student would receive an "Incomplete" for the "X" program component and such would be recorded on his transcript in the Registrar's Office. More detailed statistics and information concerning the student's progress would be kept on file in the Division in which he or she is majoring. Upon registering for a new term, the student would start his module work with the next module after the last one previously completed in component "X." Under the pass or fail, all-or-nothing grading system, if the amount of work completed was less than a set percentage, the grade would be "Failed" and the student would have to start the new term with the first module of the component without any recognition of the actual achievements previously attained.

## Group Roles and Curriculum Development

At Jarvis the faculty, students, alumni and community are involved in curriculum development and change. The Academic Credits and Curriculum Committee, which is central to curriculum change, is composed largely of faculty and students. In addition to the normal exchange of ideas and opinions about curriculum matters, at least one day a year is devoted to dialogue among all elements of the College. At this time status symbols are avoided to promote the opportunity for all to express and exchange ideas and opinions on a wide range of matters.

The community is composed of many publics. The higher education community, through consultants and published reports and standards, has influenced developments across academic divisions. Consultants have come from universities such as Michigan State University, but most have come from Texas Christian University. The business and industrial community has influenced curriculum to some degree in all areas, but particularly in business and economics through directions in conferences and planned dialogues between faculty members and their representatives during normal campus visits for recruitment purposes.

The Teacher Education Council, composed of representatives from the public schools, community and college, influences curriculum planning and augments the relevance level of curriculum. Jarvis College Alumni provided valuable feedback of information about strengths and weaknesses of the curriculum.

The general public is contacted through churches, clubs and parent-teacher associations to exchange opinions and information about new trends in employment opportunities and ways in which the College can improve its services to the community.

## Curriculum Control and Development

Curriculum control is largely determined by the faculty. Socio-economic factors and Board policy set the outer limits of this faculty function which is recognized by the Board. Ideas are introduced from students and administrators as well as from faculty members.

In the normal pattern, a petition for curriculum innovation moves to the faculty in an orderly sequence of action. (See Chart I, Curriculum Change Process). A request of petition for a change flows from the originating source to the department directly affected, to the related Division,

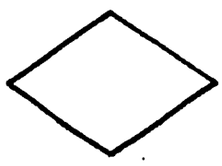
LEGEND

FLOW CHART SYMBOLS*

Channel. A path indicated by a flowline arrow through which communication flows within the system is a channel. The arrowhead indicates the direction communication flows.

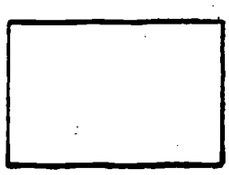
Connector, Intra-Page. Connecting points join two parts of a flowline representing a single path between two parts of a system.

Connector, Off-Page. The off-page connector joins parts of a single flow chart of a sub-system or system using more than one page to illustrate the process flow.



Decision Point. A point where the person is forced by the system to make a choice on one of several alternative channels.

Interruption Point. The interruption (terminal) point indicates the end of a unit process or the exit point in a sub-system or system.

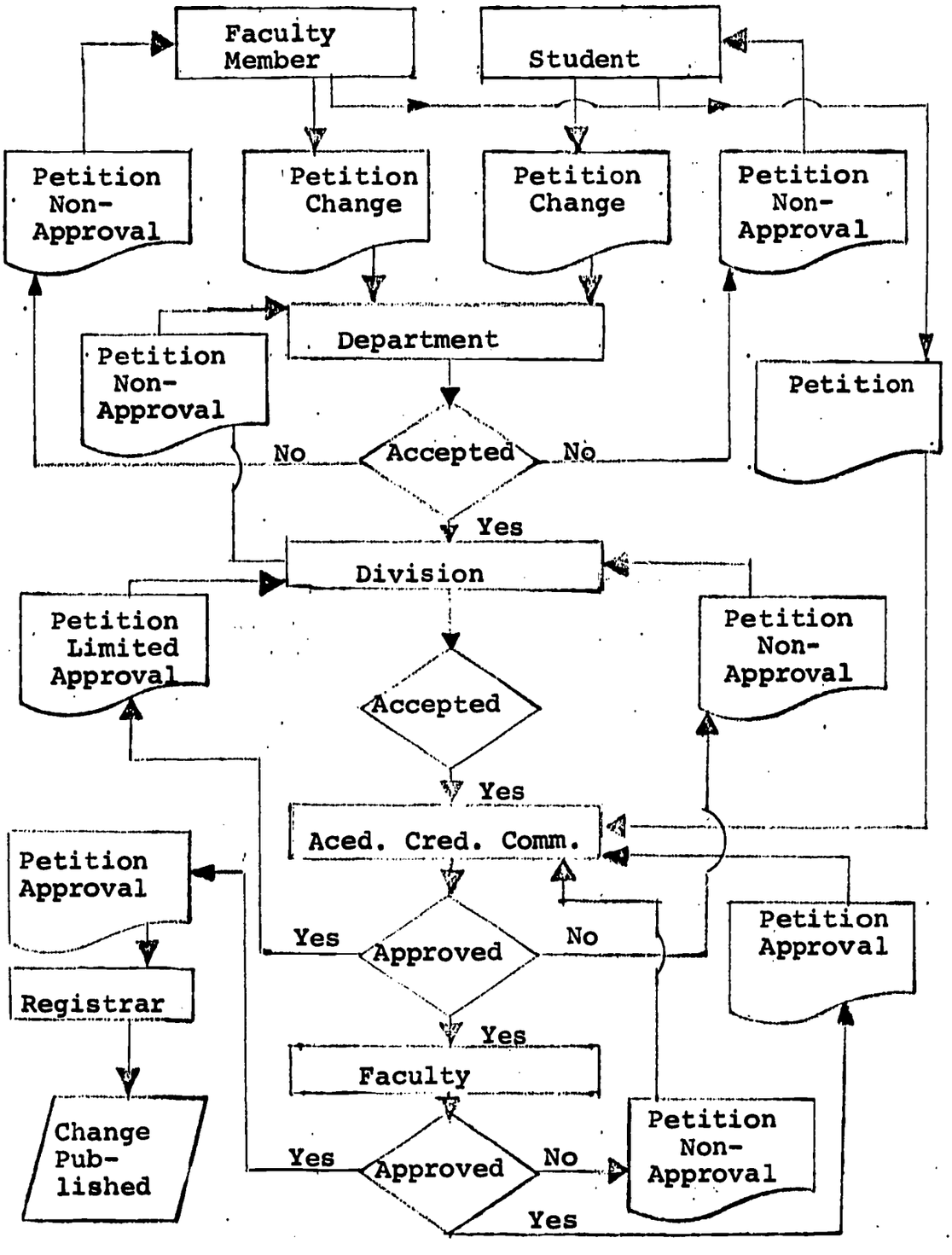


Process Frame. The process frame symbol indicates a set system-operations containing no decision nor entry and exit point.

*Their Uses in This Study

CHART I

CURRICULUM CHANGE PROCESS



to the Academic and Credits Committee and ultimately to the faculty. While the procedure is not typical, a petition may be presented directly to the faculty for its consideration. As a general principle, a petition rejected at any point (in the normal process) may be sent to the next level for review.

The Academic and Credits Committee--which is made up of elected faculty members, student representatives (student-elected), and Division Chairmen, and is presided over by the Dean of Instruction--gives full consideration to all petitions. After full discussion and deliberation, the Committee generally takes one of a number of actions on a petition.

a. Approves unconditionally.

b. Approves conditionally-
   (1) subject to more detailed development of the plann being proposed.
   (2) subject to study of implications of the petition for other system elements.

c. Approves as an experiment.

d. Tables until requested information is provided.

e. Rejects.

If the petition is approved, the action is reported to the faculty. The faculty may or may not override the decision. If the faculty elects to accept the decision, the Academic and Credits Committee authorizes the Division to implement the program, usually on an experimental basis, to be offered for one year, or at least for one semester, as a part of the program of the Division involved. This action is published through appropriate media but not placed in the College Catalog at this point. The Registrar processes the new provision for publication in the "Schedule of Classes." Before a "new"course is published in the College Catalog, it must follow the process or procedures described above.

In the event that a request for addition, deletion or revision is rejected by a body, the petitioning body may appeal to the next higher body for consideration. For example, if the Physical Education Department accepts a document and the Division of Teacher Education (its parent body) rejects it, the Department has the authority to appeal to the Academic and Credits Committee. If Teacher Certifica- is desired, the Jarvis Teacher Education Council and the Texas Education Agency must also approve the course or program. Courses which are dropped or revised must follow this procedure before changes are published in the College Catalog.

Changes within an existing program may be made in the manner described above, but a change which requires a completely new program or extensive additional resources must be presented to the President for consideration and for transmittal to the Board for action if necessary.

## Evaluation: Curriculum Control and Development

The process of curriculum control is effective in that all of the elements of the College participate in its implementation. The process does not appear to be unduly restrictive on any element of the College.

Curriculum change has been orderly. The balance between course additions and deletions over the last five-year period (1966-70) shows a net reduction in both the number of courses and the total semester hours offered.

While the curriculum has remained relatively stable during the last five years, some changes have taken place in all disciplines. Some desirable outgrowths from curriculum modification (from the student's viewpoint) have been reflected in the following:

a. The addition of independent study courses and total seminars'

b. Increased options in courses at every level;

c. The change to more appropriate requirements for the major programs; and

d. The addition of new facets in the curriculum which foster inter-institutional cooperation through such approaches as telelecture.

Art and music have been reduced temporarily to minors because of low student interest and of the need to apply limited resources to other areas. A behavioral science major was introduced in response to expanded student interest in social welfare, social action and policy, human relations, and social systems operations and change.

The number of course offerings has been reduced in eight areas and departments. In 1966-67 the total number of courses (including business education, physical education and music) was 338. By 1970-71 the number had been reduced to 271. This number is closer to the number of courses offered in a typical liberal arts college (247-omitting physical education courses).

Some courses have been omitted to allow for the inclusion of program components appropriate and relevant to student objectives and to the purposes of the College. Courses in Computer Science were added in response to the need for relevance. The updating of courses and degree programs in content and methodology has been accelerated during the past five years.

While all programs are continually being updated, the most comprehensive revisions at the present time are being implemented in biology, mathematics, physics, business administration and teacher education.

In biology, progress toward individualization of the reconstituted program is exemplified in the modularized discussion-laboratory units made available to freshman students on an open laboratory basis.

In mathematics, the progress toward meeting the needs of individual students is illustrated in the utilization of Audio-Visual methods and modular units in selected courses. Enrichment and remediation facilities are available in an open mathematics laboratory open to all mathematics students.

The Teacher Education curriculum has been reconstituted in traditional courses format to acheive more relevance and learning effectiveness while a new model is being developed. The major move toward a performance-based curriculum is in progress. At present the components represented by the current courses in Elementary School Reading and Measurement and Evaluation are modularized. Progress in this direction has been made in curriculum methods and techniques of teaching.

These are examples of the curriculum and program changes in the process of creating a more relevant and effective learning environment.

## Provisions for Special Students

Jarvis regards each student as a productive, creative self-directing adult who will grow, given a reasonably personalized curriculum within a responsive and multi-sensitizing environment. The College seeks to provide this type of curriculum and environment for all enrolled studends. Therefore, few programs or facilities are especially or exclusively available to the "gifted" or the "not-so-gifted." Laboratories in languages, reading, mathematics, business, life sciences, physical sciences and photography

respectively are designed to provide for the personalization of curriculum offerings for the board spectrum of students who enter the College.

Fundamentals of English is the only remaining course designed exclusively for students who score low on the appropriate scale of the School and College. Abilities Test, or for those who do not achieve the major English objective of the Cram Program--to prepare for or to complete some equivalence of freshman English. The course will not be taken in the experimental General Education Program.

While Developmental Reading is required for those students who score lower than the grade level of 10.9 on the Nelson-Denny Reading Test, the program is used by other students to improve their reading and comprehension skills.

For the student with many special abilities, opportunities exist for independent study related to his or her area(s) of strengths and interests. Moreover, topical seminars are held to foster meaningful opportunities for in-depth study not typically provided. Through individualized major programs and other personalizing means, a student with the qualifications may combine campus study with an approved cognate experience for hours and credit towards a degree. An example of such a cognate experience is a summer or semester of research and study at the Brookhaven National Laboratories, a nuclear energy facility in New York. Another such experience might be a nine-week internship in a Texas social welfare office or summer work in a private corporation in California. The principle of advanced placement has been adopted. At the present time, it is operational for skill courses in business and in freshman mathematics courses.

For the student whose special abilities are not easily identified, a detailed analysis of standarized psychological, achievement, and predictive instruments provides profiles of performance levels. These tests must be taken either prior to or during the matriculation process. On the basis of the results, the student may be required to take one or more courses with features designed and incorporated to absolve the deficiency. Students whose profiles indicate fewer than the required skills in English and Reading or whose transcripts do not indicate an appropriate distribution of high school units must enroll in special 12 to 14-hour programs. These programs consist of some regular freshman courses and one or more non-degree courses.

The Cram program is an enrichment academic and sociocultural summer program designed for freshmen. (See Table 12). The program is flexible enough to provide for small group and individualized instruction in communications

(reading, writing, and speaking), mathematics, music and topics or courses in physical and social sciences. A day or two of sensitivity training is included in the program to allow for discussions intended to promote self-actualization. Enrichment experiences also include on-site trips to experience artistic events and to observe stimulating examples of the world of work.

TABLE 12

CRAM ENROLLMENT BY YEARS, 1966-70

| YEAR | NUMBER |
|---|---|
| 1965-66 | 72 |
| 1966-67 | 61 |
| 1967-68 | 116 |
| 1968-69 | 135 |
| 1969-70 | 147 |

For his academic work, the Cram student usually enrolls for English and mathematics. The post-test achievement level and staff evaluation determine the course level and grade the student achieves. Individualization allows the program to serve the needs of the students representing varied levels and degrees of accomplishment.

## Academic Probation

Responsibility for policy concerning satisfactory academic work rests with the faculty. The authority of the faculty in this area is exercised by the Academic and Credits Committee. Policy is administered by the Dean of Instruction.

For several years prior to the 1968-69 term, different levels of semester grade point averages were required; for freshmen, 0.75; sophomores, 0.80; and upper classmen, 1.0. During the 1968-69 year, regulations were changed to require of all students a 1.0 minimum average on a three point scale.

Students who fail to achieve an average of 1.0 or higher during their first college semester or immediately after a successful semester, are placed on academic warning. Such

students are required to take a class load of not more than twelve to fourteen hours. "Warned" students who do not achieve the required average during the next semester are placed on probation. If, after three semesters, the demanded quality of work is not achieved, academic dismissal is in effect. As the administrator of policy, the Dean of Instruction has some discretionary power in this regard. Few exceptions are made. Generally, exceptions reflect consideration of the cumulative average when the semester average is mathematically within the 'C' minus range.

Evaluation and Implications: Provisions for Special Students

The system for dealing with special students under present policy is being improved. The persons so involved function effectively with the limited resources available.

Experiences with the CRAM Program, existing efforts toward modularization of the curriculum, and review of the literature on innovation and new curriculum models suggest that programs are possible which are flexible enough to meet the needs of those in whom many abilities are easily recognized and of those in whom such identifications are made after considerable difficulty. Needs once thought to be best met by courses preparatory to work for degree credit are now often met during the time when the degree credit work is taken.

Most of the independent study courses and topical seminars were introduced into the curriculum during the 1968-69 academic year. The provision for modifying a structured program and for creating a different program in the individualized major were initiated the same year. No formal study of their success has been made. No difficulties have been reported because of these innovations. Moreover, some of the students formerly involved in CRAM experiences are now in graduate school.

It is too early to make a final evaluation of the changes in the policy on Academic Probation and dismissal. No systematic study has been made on the progress of all students over the period just discussed. A study which is most directly relevant to one in which the academic progress of first time freshmen at Jarvis was investigated. All freshmen were divided into two groups: a regular admissions group and a conditional admissions group. Their performance records, as reflected in grades received, were analyzed for the first four semesters in residence. Table 14 shows that during the first term approximately 69 per cent of the regular freshmen and 42 per cent of the freshmen admitted conditionally met minimum or higher academic standards. While there was considerable attrition between the freshman year and the sophomore year,

TABLE 13

COMPARATIVE DISTRIBUTION OF GRADES RECEIVED BY TWO GROUPS OF FRESHMEN ADMITTED EITHER REGULARLY OR CONDITIONALLY (1968-69 through 1969-70)

| Grade Point Average Range | 1968-1969 | | | |
|---|---|---|---|---|
| | Fall | | Spring | |
| | Group 1 Regular Admission | Group 2 Conditional Admission | Group 1 Regular Admission | Group 2 Conditional Admission |
| A (2.50-3.00) | 1.92 | ---- | 2.75 | ---- |
| B+ (2.00-2.45) | 13.46 | 2.38 | 7.58 | 5.55 |
| B- (1.50-1.95) | 22.43 | 21.42 | 20.68 | 13.88 |
| C+ (1.00-1.45) | 30.76 | 19.04 | 24.13 | 27.77 |
| C- (0.5-0.95) | 17.30 | 19.04 | 26.89 | 33.33 |
| D or Below (0 - 0.45) | 5.12 | 21.42 | 4.13 | 13.88 |
| Total Per Cent | 99.96 | 99.96 | 99.95 | 99.96 |
| Total Number | 156 | 42 | 145 | 36 |

TABLE 13
Page 2 (cont'd)

COMPARATIVE DISTRIBUTION OF GRADES RECEIVED BY TWO GROUPS OF FRESHMEN ADMITTED EITHER REGULARLY OR CONDITIONALLY (1968-69 through 1969-70)

| Grade Point Average Range | 1969-70 | | | |
|---|---|---|---|---|
| | Fall | | Spring | |
| | Group 1 Regular Admission | Group 2 Conditional Admission | Group 1 Regular Admission | Group 2 Conditional Admission |
| A (2.50-3.00) | ---- | ---- | 3.33 | ---- |
| B+ (2.00-2.45) | 13.59 | ---- | 20.00 | 11.11 |
| B- (1.50-1.95) | 18.44 | 8.68 | 25.58 | 22.22 |
| C+ (1.00-1.45) | 32.03 | 34.78 | 33.33 | 38.88 |
| C- (0.50-0.95) | 27.18 | 39.13 | 8.88 | 11.11 |
| D or below (0 - 0.45) | 6.78 | 17.39 | 3.33 | 5.55 |
| Total Per Cent | 99.97 | 99.98 | 100.00 | 99.98 |
| Total Number | 103 | 23 | 90 | 18 |

TABLE 14

LONGITUDINAL ACADEMIC STATUS OF TWO GROUPS OF FRESHMEN BY SEMESTER AND BY TYPE OF ADMISSION IN PERCENTAGES
(1968-69 through 1969-70)

| ACADEMIC STATUS | 1968-69 | | | |
|---|---|---|---|---|
| | Fall | | Spring | |
| | Group 1 Regular Admissions | Group 2 Conditional Admissions | Group 1 Regular Admissions | Group 2 Conditional Admissions |
| Warning | 22.43 | 40.47 | 27.77 | 27.77 |
| Probation | ---- | ---- | 13.10 | 16.66 |
| Dismissal | ---- | ---- | 0.68 | ---- |
| Withdrawal | 8.97 | 16.66 | 13.29 | 5.55 |
| Success | 68.57 | 42.31 | 55.14 | 47.20 |
| Total Per Cent | 99.96 | 99.96 | 99.95 | 99.96 |
| Total Number | 156 | 42 | 145 | 36 |

TABLE 14
Page 2 (cont'd)

LONGITUDINAL ACADEMIC STATUS OF TWO GROUPS OF FRESHMEN BY SEMESTER AND BY TYPE OF ADMISSION IN PERCENTAGES
(1968-69 through 1969-70)

| ACADEMIC STATUS | 1969-70 | | | |
|---|---|---|---|---|
| | Fall | | Spring | |
| | Group 1 Regular Admissions | Group 2 Conditional Admissions | Group 1 Regular Admissions | Group 2 Conditional Admissions |
| Warning | 20.38 | 30.43 | 4.44 | 5.55 |
| Probation | 7.76 | 17.39 | 5.55 | 5.55 |
| Dismissal | 4.85 | 8.69 | 3.33 | 5.55 |
| Withdrawal | 1.94 | ---- | 5.55 | 11.11 |
| Success | 64.06 | 43.46 | 82.24 | 72.21 |
| Total Per Cent | 99.97 | 99.98 | 100.00 | 99.98 |
| Total Number | 103 | 23 | 90 | 19 |

during the spring semester of the sophomore year fewer than 20 per cent of the regular group and fewer than 30 per cent of the conditional group were working below the minimum level required.

Table 13 compares the distribution of grade point average for the two groups of students. The regular group did better academically than did the conditional group. There was, however, no term in which some of those admitted conditionally were not represented in honors level work.

The complete and continuing analysis of such data for all students is needed. Adequate computer facilities and expanded institutional research activities would expedite the process.

## Instructional Techniques and Methodology

Instruction at Jarvis is predicated on the principle that generally occurs where the individual learner is engaged in significant scholarly research or in creative discovery. The College has an interest in encouraging and rewarding its students in such efforts. In keeping with the purposes and objectives of the College, all instruction is aimed at maximum development of individual potential.

As part of the 1969-70 institutional Self-Study, the opinions held by Jarvis' faculty members regarding the College's methods of instruction were surveyed. A clear majority of the respondents expressed favorable opinions about the methods of instruction used at Jarvis. (See Table 15).

TABLE 15

Faculty Response to the Question: Do you think the methods of instruction are designed to enable the institution to achieve its purpose?

| Response: | Number | Per cent |
|---|---|---|
| Yes, to a great degree | 3 | 11 |
| Yes, to a substantial degree | 17 | 63 |
| Yes, to a small degree | 4 | 15 |
| No | 0 | 0 |
| No response indicated | 3 | 11 |
| Total | 27 | 100 |

## Class Size and Effectiveness

Formal action has not been taken by either the Board of Trustees or the faculty to formulate a statement on teaching load. The Dean of Instruction operates from an unwritten policy which limits class load to twelve semester hours with no more than three preparations. Generally, lower division instructors may expect a duplication of courses and at least two preparations. Faculty members teaching upper division courses may carry a nine semester hour load with three preparations. Exceptions have been made when necessary. For instance, faculty members involved in research or a heavy committee assignment may have either the number of preparations or the hours of classroom instruction reduced. On the other hand, class size, hours of instruction, or number of preparations may be increased depending upon enrollment demands and student needs. While attempts are made to limit class loads to 100 students for instructors involved with English composition, at times such a standard has not been practicable. It is recommended that the present flexible policy relating to teaching load be formally established. With generally heavy committee assignments, the policy practiced seems equitable. Formal studies of relationships of class size to teaching effectiveness have not been conducted.

During recent years, the College has given attention to the systems approach to education and the use of instructional modules. Promises of economy of operation and of better organization of learning experiences have dictated that the College should push these and other innovative approaches as far as it can for whatever they may contribute to the improvement and effectiveness of its educational programs.

## Implications of Modularized Curriculum

The basic processes now in operation for adding or withdrawing programs or their major sub-components would remain the same, given a modularized curriculum. Changes at the modular or sub-program component level, however, would be regular and systematic. With an adequate evaluation system, a certain percentage of the respective program modules could be reviewed yearly. By reviewing at a rate of one in every five modules each year, in five years the program could be completely evaluated by appropriate criteria. Two review and up-dating cycles could be completed on a non-crisis basis between the ten year visits of the Southern Association of Colleges and Schools.

The transition from a traditional curriculum structure to a dynamic curriculum system is not achieved without value conflicts and systematic planning.

After the conflict of values over the need or lack of need to change is essentially resolved in favor of a modular approach to curriculum design, the faculty and other appropriate groups must decide either to take one level of the existing curriculum structure as a focus of transformation into a system or to take the total structure. The ideal approach, given an adequate operational structure in a traditional arts and sciences setting, would be to take the total curriculum of a school or college as the object of transformation.

At this stage one can create more conflict than is necessary by insisting that all of the goals of the several program components and their constituent modules be stated in "behavioral" terms. If one school of thought holds that this style of writing objectives is essential for sound curriculum system-building while another school holds a more "humanistic" view, the resulting value conflict may frustrate the desires of many in both schools for orderly change and provide the opponents of curriculum change with a non-central issure behind which to rationalize their opposition.

One essential basis for building a program of modules and components is the ability of the builder to communicate to learners and other appropriate groups the answers to the following questions.

a. What is this learning experience specifically designed to accomplisy? (Basic terms used in an answer to such a question must be defined in a way such that the range of their interpretation is as narrow as possible).

b. How will the learner and others know when the purpose for which the learning experience was designed is attained?

c. What material and non-material resources are needed to complete successfully this specific task or set of tasks?

d. Where does this learning experience fit among some sequence of learning experiences ordered on some defined dimension?

e. Is this learning experience only as complex as is necessary to make it a meaningful unit of work among other units?

If these questions are answered in such a way that all persons concerned are in effective two-way communication, the question of "behavioral" or "non-behavioral" terminology

need not result in a major confrontation of schools of thought.

There might be a temptation among some curriculum reformers to break existing courses into smaller units of content material and construct modules around these parts. If this approach is utilized only in order to learn or to demonstrate the process of building modules, the approach is restricted in value to that end. If, however, it is assumed that the goal of a relevant reconstituted and up-dated curriculum system will result from using the above approach, there is the strong possibility that irrelevant materials and processes will remain, gaps in the current design will be unfilled, and undesigned duplications among components within and among programs will persist.

The systems approach demands a detailed analysis of the whole curriculum. In the process each learning experience must be justified for its contribution to the successful completion of a program and placed in some defined order or orders. (See 9, 19, 21, 30).

## CHAPTER VII

## EVALUATION SUB-SYSTEM

### Credits Earned and Recorded

The Registrar is responsible for maintaining the records of credits earned in residence and of those transferable from other institutions. Records are issued to authorized persons as the situation demands and to students, parents and appropriate Jarvis' officials as scheduled.

At the present time, letters of the alphabet are used to denote the quality of work completed per semester hour. Each letter is quantifiable on a three point system.

TABLE 16

GRADING SYSTEM

| Grade | Symbol | Point Value |
|---|---|---|
| Excellent | A | 3 |
| Good | B | 2 |
| Average | C | 1 |
| Lowest Passing | D | 0 |
| Failure | F | 0 |
| Incomplete | I | 0 |
| Withdrew | W | 0 |

The policy concerning academic credits earned in another country is to accept such credits from recognized college-level foreign institutions. Guides pertaining to the evaluation of foreign-based credits are available from the United States Office of Education and the Community on Foreign Students of

The American Association of Collegiate Registrars and Admission Officers (AACRAO).

## Evaluation and Implications

The Registrar and the related staff function within policy parameters. The Registrar's Office operates at an adequate level of efficiency to fulfill basic record-collection needs. However, the expected increase in the flow of data into this office during the next few years will demand improved skills and the application of data processing or computer techniques in order to facilitate and made adequate the systems involving academic record storage, analysis, and retrieval. The system of recording evidences of the quality of credits earned is in need of review.

Moreover, some faculty members feel that the present system of letters and numbers is inadequate for reflecting the quality and quantity of academic work in the modular and personalized curriculum now in the development stage at Jarvis. They insist that a modified or new system of grading is needed, one that will allow students to explore new areas of learning in an atmosphere in which performance or functional achievement is not dwarfed by a drive for grade symbols. They would allow the student credit for fractional parts of components (courses, etc.) achieved per module of study.

The policy relating to credits which are transferable from two-year colleges and higher level colleges is reasonable. Grades of average (C), good (B), and excellent (A) are transferable. The minimum thirty hours of residence credit requirements for a degree, which is equivalent to nine months of normal progress, is the minimum time needed for Jarvis to influence and evaluate the expected level of performance of its graduates. The system for the evaluation of credits earned in foreign institutions is expected to become more important as programs for exchange students and for study abroad are initiated.

The flow and quantity of data are increasing, but the system and sub-system provided for their analysis remain essentially the ones which were most effective as a base for academic decision making during less dynamic times and in a traditional non-modular system. Moreover, detailed records will be needed at the departmental or Divisional level for student achievement and curriculum evaluations. The use of a computer in the several areas affecting learning and the educational program is no longer a luxury but a necessity for learning, evaluation, analysis, and viable decision making.

## Formal and Informal Measures

The Administration and the faculty of Jarvis currently rely upon a variety of evaluative instruments and techniques to determine the effectiveness of instruction. Diagnostic tests administered to all freshmen, in addition to high school transcripts, give the College data concerning the students' previous learning experiences and provide some input for predicting their success. During the sophomore year, after the student has fulfilled the lower divisional requirements in English Language and Literature, mathematics or Foreign Language, Social and Behavioral Sciences, and Life or Physical Sciences, he must take the Sequential Test of Educational Progress (STEP) and the Cooperative English Test as determinants of his readiness to undertake upper division work. The minimal passing level on the STEP is the twenty-fifth percentile, while the tenth percentile represents the minimal passing level on the English test. A student scoring below the required percentile is allowed to repeat the portions of the test he failed by using different but equivalent forms until he has reached the minimal passing level. Further checks are made on the student's progress during his last semester is residence before graduation. All seniors are required to take the Graduate Record Examination, and senior education majors must take the National Teacher Examination.

As the student progresses through his educational program, he is exposed also to a wide variety of teacher-made tests designed to evaluate learning and retention. When polled by the Educational Program Committee in the spring of 1970, the faculty members indicated that they primarily administered essay, problem-solving, and performance tests. These were followed in popularity by tests consisting of multiple choice, matching, and identification questions. Occasionally true-false, completion, and oral examinations are administered.

In addition, various standardized tests are administered at the departmental level. These include achievement tests in typing and business communications; the American Chemical Society Cooperative Examination; pre- and post-tests of Self-Aids in English Usage; the Nelson-Denny in Reading, the Botel Reading Inventory, and the SRA Reading Placement tests in the Developmental Reading course; pre- and post-tests of the Minnesota Teacher Attitude Inventory in Education; and pre- and post-tests of the California Survey Series in Biological Science, and the Nelson Biology Test.

Another level at which evaluation occurs is between advisor and advisee. Each student is assigned a faculty advisor with whom he confers periodically regarding his selection of a suitable educational program, his tentative

plans from semester to semester, and his progress toward achieving his educational goals.

Students are included in the evaluative process at Jarvis in a number of constructive ways. Many instructors encourage students to make end-of-course critiques of both the method and content of instruction. Dialogue days held during the last two academic years have provided students with an opportunity for expressing concern for the instructional program.

Last year, for the second time within the last five years, students formally evaluated their instructors on a school-wide basis. A subcommittee of the Faculty Self-Study Committee structured an evaluation form which rated the instructor's effectiveness and his professional acumen. Since the evaluation represented a measure of personal effectiveness, no generalizations were drawn regarding instruction on the campus. Rather, a compilation of results was sent to the President and the Dean of Instruction. Each faculty member also received a compilation of his students' evaluation of his instruction.

Jarvis proceeds on the premise that evaluation must be congruent with established objectives.

Because of the small size of Jarvis and the short lines of communication, administrative evaluation of instruction, heretofore, has been informal. Subjective impressions are gained through conferences with students, faculty members, department heads, and Division chairmen. Systematic reviews of syllabi and course outlines are conducted by the Dean of Instruction and the Divisional chairmen. Student grades, gradepoint distributions and the attrition rate reports provide additional data upon which to evaluate instruction.

In order to acquire more reliable indices of evaluation and subsequently to improve instruction, it is recommended that correlations be established between results of standardized tests administered to students on a college-wide basis and those of pre- and post standardized tests required by the College, providing more objective indicators of program success. It is recommended, further, that the evaluation sub-system be reconstituted in such that (1) data on the individual student's level of achievement will be available upon demand by module, by component, and by program; (2) the semester hour value of the modules and of the components will be recorded in the departmental records as they are completed; (3) the performance level will be recorded using either symbols for "pass" and "Incomplete" or "Incomplete," "average," "good," and "excellent;" and (4) such data as may be needed in order

to make frequent assessments of each curriculum program and inclusive sub-parts and of the evaluation system processes will be made available. In the next section the utilization of certain aspects of such a system is illustrated.

## Inter-system Communication: A New Model

One of the major problems in the implementation of the modular and systems approach is that of facilitating the communication of the achievements of students in a non-traditional system to systems and structures equipped for receiving and decoding only records of students expressed in traditional symbols of terms: "A," "B," "C," "D," "F," and "I." In order for effective communication to occur, either some common system of symbols and meanings needs to be adopted or one of the parties must translate his language into an equivalent form understood by the other party. In the case of the innovative situation, those who would change from the commonly accepted form of communicating in order to express essential differences in content, process, and objectives must provide the necessary means of effective interaction until their system is commonly understood. In the hypothetical case of John Doe, one method of communicating between traditional and non-traditional systems is partially explained and illustrated.

In a traditional three semester-hour course, 54 clock hours of learning experiences under the direction of a faculty member are provided. Each semester hour is equal to 18 clock hours. Classes generally meet three times a week for a total number of three clock hours. There are 60 minutes in an hour. Since college credits are expressed in terms of semester hours, one may express smaller amounts of credits earned in semester minutes. In order to obtain the value of a semester minute in terms of clock hours, one divides the sixty-minutes in a semester hour by its clock hour equivalent, eighteen. The results of such calculations are indicated in Table 17. One clock hour is equivalent to 3.33 semester minutes and nine clock hours equals 30 semester minutes or one-half of a semester hour. On each module, the estimated time required to complete it is indicated. Although there are theoretical difficulties which will not be discussed in this report, the estimated time required may be utilized, operationally, as an index to the level of difficulty.

CHART 2

MODULAR, SELF-PACING LEARNING PROCESS

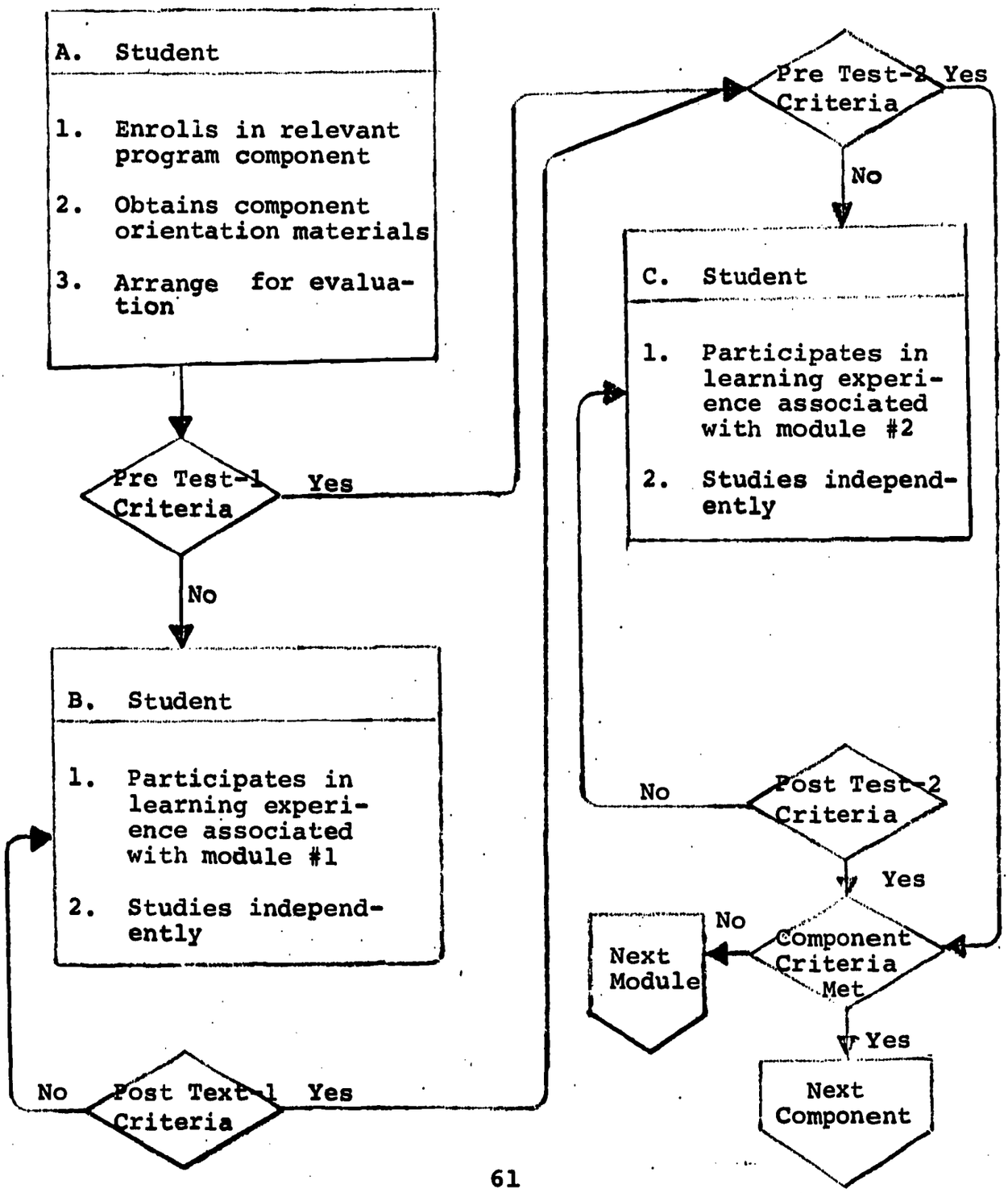


TABLE 17

CLOCK HOUR VALUE OF LEARNING EXPERIENCES
AND THEIR SEMESTER HOUR EQUIVALENTS IN SEMESTER MINUTES

| Clock Hour | Semester Minutes |
|---|---|
| 1 | 3.33 |
| 2 | 6.66 |
| 3 | 9.99 |
| 4 | 13.22 |
| 5 | 16.65 |
| 6 | 19.98 |
| 7 | 23.31 |
| 8 | 26.64 |
| 9 | 29.97 |
| 10 | 33.30 |
| 11 | 36.63 |
| 12 | 39.96 |

The achievement record of John Doe for component 343 which contains 10 modules is shown in Table 18. The flow of activities associated with modular learning is illustrated in Chart 2.

The pre-test for module 343.01, form one, was taken on January 19, 1971 and the results recorded in column "B" (P-1, a "pass" using form one). The level and quality of the "passing" is recorded as excellent by the symbol "A" in column "H." The semester hour equivalent value earned, shown in column "I," is 6.66 semester hours (2 column "F" times 3.33).

He took the pre-test for modules 343.01, 343.02, 343.03 and 343.04 in their numbered order and passed the first three. Having incompletely demonstrated the level of performance

TABLE 18

HYPOTHETICAL DEPARTMENTAL RECORD OF JOHN DOE FOR COMPONENT 343, SPRING SEMESTER 1971

| Module Number | Pre-Test | Date | Post-Test | Date | TE* | TA** | Module Evaluation Symbol | Earned Minutes (SH Eq.) | Teacher |
|---|---|---|---|---|---|---|---|---|---|
| 343.01 | P-1 | 1/19 | - | - | 2 | 1 | A | 6.66 | |
| 343.02 | P-1 | 1/20 | - | - | 4 | 1 | B | 13.32 | |
| 343.03 | P-1 | 1/21 | - | - | 2 | 1 | C | 6.66 | |
| 343.04 | I-1 | 1/22 | P-1 | 2/1 | 6 | 5 | B | 19.98 | |
| 343.05 | P-3 | 2/2 | - | - | 3 | 1 | B | 9.99 | |
| 343.06 | I-1 | 2/3 | I-2 | 2/10 | - | - | I | - | |
| " | - | - | P-2 | 2/12 | 5 | 7 | C | 16.65 | |
| 343.07 | I-1 | 2/15 | P-1 | 2/26 | 9 | 10 | B | 29.97 | |
| 343.08 | I-1 | 3/1 | P-1 | 3/15 | 10 | 10 | B | 33.30 | |
| 343.09 | I-3 | 3/16 | I-4 | 3/22 | - | - | I | - | |
| " | - | - | I-3 | 3/26 | - | - | I | - | |
| " | - | - | P-2 | 3/30 | 8 | 10 | C | 26.64 | |
| 343.10 | I-2 | 4/14 | P-2 | 4/20 | 5 | 4 | A | 16.65 | |

*TE equals the estimated number of hours needed for the completion of a model

**TA equals the actual number of hours taken by the learner to complete each module

stated in the criteria for module 343.04, he went through the experiences specified in the module in five days and passed the post-test on February 1, earning immediately 19.98 semester minutes. Mr. Doe proceeded to work through this component on a regular basis until the fifteenth of March. On March 26, after some motivational difficulties with module 343.09, he negotiated with a member of the faculty to work with what he considered to be materials more relevant to achieve the given objective. The contract was fulfilled on March 30. Although the spring vacation was a week long, he went to Houston, Texas for two weeks. After returning to study, he completed the last module in the component on April 20- approximately a month before the end of the semester.

Through large lectures, small group instruction, private conferences, he had direct contacts with several faculty members. He used audio and video play-back units to view or review. Column "J" shows the initials of the staff member who administered the relevant materials prepared or selected by the faculty team. Some faculty member was in the learning center to help him or others between 9:00 P.M. and 4:00 P.M. daily, five days a week. The module evaluations were certified on the day indicated sometime between 9:00 A.M. and 4:00 P.M.

As Mr. Doe completed the modules, his achievement record was analyzed and updated (Table 19). Between January 19 and January 21, he earned almost one-half of a semester hour or 26.64 semester minutes with a cumulative grade point average of "2" or "B."

If he had not returned to college after his spring vacation, the departmental record would have indicated that he had satisfactorily completed nine modules in a ten module component. The component would have been incomplete.

In reporting his grade to the Registrar's Office, one would have had two choices. One choice would have been to simply record an "I" for incomplete component. In order to have given credit for the amount of actual achievement for inter-institution transfer value, one would have had to record the semester hours earned to the nearest half-hour (2.5 semester hours for 163.17 semester minutes) at the quality level indicated (1,73) on a three point scale and indicate a grade of "I" for the remaining half hour of the component to be completed.

In any case, his departmental records would have indicated that upon his return, module 343.10 would be his point of reentry into the program.

Mr. Doe, however, did return to his studies after his

TABLE 19

DEPARTMENTAL RECORD ANALYSIS SHEET FOR JOHN DOE

| Date | Hour Value F | Point Value H | I (Fx3.33) | I | K (HxI) | Cumulative Semester Minutes I | Cumulative Grade Point Average, GPA Symbol $\frac{K}{I}$ |
|---|---|---|---|---|---|---|---|
| 1/19 | 2 | 3 | 6.66 | 6.66 | 19.98 | 19.98 | 3.00 A |
| 1/20 | 4 | 2 | 13.32 | 19.98 | 26.64 | 46.62 | 2.33 B+ |
| 1/21 | 2 | 1 | 6.66 | 26.64 | 6.66 | 53.28 | 2.00 B |
| 2/1 | 6 | 2 | 19.98 | 46.62 | 39.96 | 93.24 | 2.00 B |
| 2/2 | 3 | 2 | 9.99 | 56.61 | 19.98 | 113.22 | 2.00 B |
| 2/12 | 5 | 1 | 16.65 | 73.26 | 16.65 | 129.87 | 1.77 B- |
| 2/26 | 9 | 2 | 29.97 | 103.23 | 59.94 | 189.81 | 1.84 B- |
| 3/15 | 10 | 2 | 22.20 | 136.53 | 66.60 | 256.61 | 1.88 B- |
| 3/30 | 8 | 1 | 26.64 | 163.17 | 26.64 | 283.05 | 1.73 B- |
| 4/40 | 5 | 3 | 16.65 | 179.82 | 49.95 | 333.00 | 1.85 B- |

spring vacation. He did complete component 343 before the end of the semester. After departmental analysis (See Table 19), the staff sent to central records in the Registrar's Office a grade of "B-minus" for three semester hours in component (course 343.

CHAPTER VIII

The Management Sub-system

## Introduction

One of the general functions of a college management sub-system is to maintain the college's response and stimulus viability in a changing society. This general function of a college implies a flexibility in reactions to changing environmental factors. Such reactions are directed toward establishing, reestablishing or strengthening the optimal symbiotic relationship between the college and its environment.

The college operating on the frontiers of knowledge may seek to change the environment. The environmental sector may believe that its intereats can no longer be adequately served by the College.

In such a situation the College, the environment or both may need modifications. When readjustments are made, the management must facilitate those reactions by the College which insure a viable and productive system. This general function also implies an operational approach to detailed administrative and developmental activities which are not orientated toward a passive role from a traditional and common-practice perspective but toward an active role from a reality-based and future-directed perspective.

Subsumed under this general function are several sets of more detailed management functions. Among these functions are:

1. To monitor external environmental conditions and the current internal College operations.

2. To facilitate optimal system adjustments based on a knowledge of environmental needs and requirements and system needs and requirements.

3. To make projections of future external and interval system needs and resources and determine goals or appropriate responses and

4. To develop systematic plans for attaining goals or for making the vital responses.

## The Jarvis Management Sub-system

Improvement of the organization and operations of the College, constantly a first order of concern at Jarvis, has been especially evident during the past five years.

During the 1967-68 school year, with financial assistance from the Ford Foundation, administrators at Jarvis participated in a long range planning exercise under the general auspices of the Academy for Educational Development. The exercise provided both experience with long range planning and a frame of reference for it.

During the summer of 1968, under a grant from the Esso Foundation, the administration of Jarvis prepared and distributed a Management and Operations Notebook, a compilation of information concerning the detailed operations of each segment of the College. The Notebook, available in each office, is arranged in sections which may be replaced when their contents are superseded by later policies and procedures.

During the same summer, there appeared revised versions of the Secretary, Clerical and Office Workers Manual; the Olin Library Manual; the Student Handbook; and dormitory handbooks for men and for women. The Student Teaching Handbook was added during that year.

Between May, 1967, and December, 1969, the firm of Peat, Marwick, Mitchell and Company, with funding first by the Esso Foundation and subsequently by the Ford Foundation, provided consultative services to the administration of Jarvis. Although the work of the firm was primarily concerned with the operation of the Business Office, the portion of their services relating to budget necessarily involved all segments of the College. The Operating Practices Manual for Planning and Budgeting, prepared as a result of the consultations, provides a useful frame for long and short term planning. The Salary Administration Plan: Job Descriptions and Personnel Policies was prepared during the same period to describe administrative duties and relationships of non-academic personnel, and to suggest guidelines for these duties and relationships.

Ford Foundation sponsorship during this period made possible internship training for three employees of the Fiscal Affairs Office, as well as workshop participation by selected Fiscal Affairs Office personnel.

In 1969, under Ford Foundation sponsorship, the Master Plan of the College was revised and up-dated, and the resulting effort was summarized in the Jarvis College Development Plan.

The overall management sub-system of Jarvis has undergone both subtle and apparent changes in detail since 1965.

The By-laws of the Jarvis Board of Trustees indicate that the President of the College is ultimately responsible to the Board for the active management of the business affairs of the College, for the execution of the policies of the Board, for the appointment of key personnel, and for the preparation of plans and the formulation of operational policies for the College within Board-determined guidelines. He represents the College in major educational organizations and has such other responsiblities as the Board may indicate from time to time.

The Officers presently responsible to the President and reporting directly to him are the Fiscal Affairs Manager, the Dean of Instruction, the Dean of Student Affairs, the Director of Development, the Director of Public Information, the Director of Religious Life and Church Relations, and the Coordinator of Federal Programs.

He is advised in his work by the President's Advisory Council, a body representative of all Divisions and services of the College. The President is chairman of the Council and the Dean of Instruction is vice-chairman.

An active, goal-directed developing institution, employing new persons in new positions, experiences covert changes in lines of authority and overt differentiation of functions. For such institutions, periodic redefinitions, clarifications, and reallocation of duties become necessary. As these developments proceed, clear and rapid publication of them, usually in official documents, follow.

Administrative officers at Jarvis understand and accept their responsibilities. At the same time, the need exists for improved communication regarding duties and responsibilities throughout the College community. All documents which include new or redefined titles, job descriptions and College policies are published. Titles of positions and their associated functions are recorded in the Salary Administration Plan. These changes, in addition to changes in policy, are recorded in the Management and Operations Notebook, and, where necessary, in the Faculty Handbook. The College policies relating to students are published in The Student Handbook, and The College Catalog.

## Cooperative Decision Making

In recent years increasing numbers of faculty and stu-

dents have indicated their interest in further participation in governance. Moreover, during these years, increased opportunities for such participation has been provided. Students elected or appointed by the student government participate on the President's Advisory Council and on virtually every standing committee of the College. A faculty committee nominates persons to be elected by the faculty committees, as well as those who will represent the faculty on administrative committees.

Some faculty members, however, feel that further faculty involvement in governance, probably through a faculty senate, is necessary at this time. This area is currently being explored.

Significant growth has been projected for the College in the years immediately ahead. To assure appropriate faculty and student participation in governance while maintaining orderly progression, the administration has committed itself to the minimum necessary faculty turnover and the limitation of any freshman class to one-half the total student population.

## Allocation of Resources at Jarvis

Average expenditures per student at Jarvis are higher than the minimum suggested in Standards of the College Delegate Assembly. Fifty per cent or more of the total College budget has traditionally been earmarked for Educational and General expenditure with approximately half of that amount being assigned to Instruction and Departmental Research. Library expenditures have been close to the five per cent mark. Although faculty salaries and amounts allocated to Educational and General expense and to Instruction and Departmental Research have been low by national standards, they are in line with similar allocations at institutions of comparable size, purpose and role. The 1970 College budget is $2,577,091. By 1980 a conservative projection indicates the need for a budget of $10,928,529.

## Evaluation and Implications

The overall organization of the College is essentially adequate for the achievement of its purposes. There are, however, some suggested changes for the immediate and the less immediate future. A Director of Research should be employed, and some improvement in the availability and use of computer resources should be provided. The recruitment function should be performed by a full-time person. Addi-

tional resources should be allocated to the Development Office as additional revenues are realized. Technical systems and media, as well as programmed and software materials, should be coordinated as resources of the library in its role as a central learning center.

While further study must be made to determine the financial feasibility of a full implementation of the modular and systems approach on a College-wide basis, the operations of the College under such a system would be facilitated by charging tuition by the semester and not by credits. At the present time, part-time students and students whose academic records indicate below-average achievement take less than a full course load, but they often require more special assistance and faculty time per student than others. They use certain laboratories and Centers plus all of the library facilities without limits. For the services received, these students pay a disproportionate share of the College cost. The additional funds made available through the additional charges to these and other students should enable the management to increase the allocation of resources to program operations and development.

The systems approach to budget development is essential to successful system operations. While the input of resources is always limited, environmental economic factors may further limit resources for College operations.

Under all conditions, budgetary efficiency is an expressed objective. In order to attain budgetary efficiency and to maintain a viable system, the college management sub-system must have knowledge of the covert and overt functions of each of the internal sub-systems and the relative and absolute contribution each system element makes to the levels and qualities of the system's operations. For example, during a slow-down in economic growth the college may determine that income from all sources is not expected to meet projected budgetary requirements, and that the budget must be lowered ten per cent. Given such a situation, an efficiency-minded, well meaning but systems-naive management team might weaken the College by cutting each time item by ten per cent without determining the comparative contributions of each item to the maintenance of essential system operational viability. During the required budgetary adjustment period, it might even be determined that the situational demands can be met by increases in selected areas, no reductions in some areas, and much more than ten per cent cuts in other areas.

# CHAPTER IX

# SELECTED SUPPORT SERVICES AND FACILITIES

## Introduction

Jarvis Christian College is a social system. One of the determinants of its success in fulfilling its purposes or missions is the appropriateness, quality and quantity of available operating space, functional equipment, relevant materials and expertise.

In 1959, Jarvis began planning a new campus on its present 1,000 acre site. During Phase I of the implementation of the resulting master plan, one-half of the dormitories needed for the 1970's, the Olin Library and Communication Center, and the Meyers Life and Physical Science Center were completed. Phase II of the master plan calls for space expansion to house present and projected programs in the Humanities Division, the Social and Behavioral Sciences Division, The Teacher Education Division, and Student Services. The Smith Administration Center Project to up-date an old building for use in central administration is in progress. The Smith Center will be adequate until 1975, then management's needs will require new facilities. Each new building constructed or old one remodeled will be designed in such a way that program adjustment difficulties due to changes in environmental factors will be minimal.

In the sections below facilities and services dealing with media, the libraries and teacher education will be discussed.

## Media Center

The Media Center provides a medium variety of learning devices, materials and services to students and faculty members. Other Center functions include the general maintenance of fixed media in facilities under the supervision of other areas, such as the Language Laboratory in the Humanities Division and The Learning and Demonstration Center in the Teacher Education Division.

The Media Center is located on the ground floor of the Olin Library and Communication Center. Included in the Center

are facilities for the limited production and distribution of television and other learning materials, for previewing films and audio or video tapes, for the storage and servicing of circulated equipment and soft-ware, for staff work areas and offices, for individualized and group instruction in teaching technology, and for inter-institutional communications through telelecture.

Although additional space for the Center was obtained by moving the Public Relations Office from Olin to the partially remodeled Smith Administration Center, more space is needed for even present operations.

## Teacher Education Learning and Demonstration Center

The Teacher Education Learning Center was established during the summer of 1970 as a direct result of implications of the "new models" in teacher education for developing institutions. The Learning Center is located in the Olin Library and Communication Center. It is designed to serve temporarily as a micro-teaching laboratory-a multi-centered mini-classroom, a teacher-training resource room, and an individualized and independent study area.

In order to provide the flexible space necessary for the Learning Center, a few alterations in physical facilities were necessary: (1) a non-load bearing wall was removed from between two conventional classrooms, (2) a one way mirror was installed between the resulting large room and faculty offices, (3) a triangular-shaped cabinet with adjustable shelves was built with space for a television camera screened by a door with holes large enough to allow any activity in the room to be recorded, (4) a television cable system was installed in the central room and the faculty office area, and (5) chairs arranged in rows and bolted to the floor were removed.

In order to provide small group study space in the reading laboratory part of the Center's facilities and to provide the micro-teaching and demonstration area with individual-study space, six carrels were moved from the laboratory in the main part of the Center.

## Media Utilization and Effectiveness

Although no formal evaluation of the effectiveness of the use of media in instruction has been undertaken, reactions of students and faculty are suggestive. Users of the telelecture equipment, for example, have noted that the equipment works well with speech but not with music and that it works best when only two stations are involved. It is, therefore, ideally

adapted to the task of bringing into a classroom an important and desirable speaker who could not be brought to the classroom in person. Television equipment has probed especially effective in providing the basis for self-evaluation by students of speech and of teaching methods.

Some faculty timidity in the presence of equipment and devices with which they are not thoroughly acquainted is to be expected. Even so, students and faculty at Jarvis have recognized the effectiveness of media in attracting and holding attention and in stimulating interest.

A utilization study completed by the Educational Program Committee in 1969 found that of all the teaching devices, 16mm films were used most frequently, followed by filmstrips, and the overhead projector. (See Table 20).

TABLE 20

SELECTED INSTRUCTIONAL DEVICES BY NUMBER OF FACULTY USING THEM AND BY FACULTY OPINION OF THE EFFECTIVENESS OF EACH IN INSTRUCTION

| Selected Type | No. Using | Effectiveness | | | | |
|---|---|---|---|---|---|---|
| | | Poor | Fair | Good | Excellent | No |
| Closed-circuit TV | 8 | 0 | 2 | 2 | 4 | 0 |
| Language laboratory | 3 | 0 | 0 | 2 | 1 | 0 |
| Recorded lectures | 14 | 0 | 5 | 5 | 3 | 1 |
| Programmed learning materials | 16 | 0 | 4 | 6 | 4 | 2 |
| Films | 30 | 0 | 3 | 18 | 4 | 5 |
| Filmstrips | 24 | 0 | 5 | 16 | 2 | 1 |
| Overhead projector | 20 | 0 | 1 | 7 | 11 | 1 |

A total of 36 out of 54 faculty members responded to the questionnaire.

The survey indicated that the television studio is not yet being used to its optimum capacity; however, results among those faculty members who have used the facility are rated good to excellent. The language laboratory, used by reading, speech and foreign language classes, have been utilized with good results. Of all teaching materials in use at Jarvis, the overhead projector is regarded as the most effective device. English classes have used telelecture equipment to good advantage in exchanging lecture sessions with members of the Texas Association of Developing Colleges. Social science classes have used the equipment to bring national figures into the classroom. Thirty-six out of fifty-four full and part-

time faculty members, in responsing to the questionnaire, generally ranked the instructional materials as good.

Plans for utilizing teaching equipment included the proposed acquisition of an information storage and retrieval system and expansion of computer services. Consultants have been contacted and systems functional to the needs of Jarvis have been discussed. In addition, every division of the College anticipates increased usage of the equipment and materials already available. For example, plans are being laid to offer more business courses in computer science with the addition of instruction on key punch and card-sorting machines. In the area of typing, an audio-visual tutorial method is being studied so that typing may be taught by close-circuit television. The Department of Mathematics anticipates greater use of programmed learning materials in conjunction with its attempts to individualize instruction. The Division of Teacher Education is in the process of refining and maximizing its use of television facilities for micro-teaching and individualized instruction.

## The College Library

Realizing the need for additional library facilities and holdings to advance and support the educational program, the Administrative Vice-President, the library staff, and the architect planned in 1961, a new library building. In 1964, Mr. Charles Horn announced a grant of $585,000 from the Olin Foundation to the College for constructing and equipping a Library and Communications Center. In 1965, the Olin Library and Communication Center was dedicated.

In 1967, the President of the College announced the formal establishment of a black collection intended as a regional Center for the "study of the Negro." The Black Collection continues to grow, and selections from it are now used in courses in several disciplines. The Ford Foundation, in 1969, provided funds for the purchase of a paperback collection of books to be used in black studies. The 544 titles in this collection, valued at approximately $1,000, were selected by the Southern Association of Colleges and Schools.

On December 31, 1970, the Library contained 44,819 volumes and subscribed to 340 periodicals. Many of the periodicals are bound, others are on microfilm. The Library receives 69 additional periodicals as gifts. For a description of the periodicals at Jarvis, see tables 21 and 22.

The Jarvis Library could not have achieved its present collection without H.E.W. grants under Title VI and gifts from industry, private individuals, and foundations. Be-

TABLE 21

JOURNAL SUBSCRIPTION BY AREA

| Educational Area | Number of Journals |
|---|---|
| Audio-Visual | 2 |
| Art | 5 |
| Library | 5 |
| Philosophy | 5 |
| Mathematics | 6 |
| Black Studies | 8 |
| Speech and Drama | 7 |
| Religion | 8 |
| Foreign Language | 9 |
| Health and Physical Education | 11 |
| Music | 13 |
| Psychology | 15 |
| Business | 20 |
| English | 30 |
| Science | 36 |
| Education | 47 |
| Social Sciences | 68 |
| Miscellaneous* | 114 |
| Total | 409 |

*Homemaking, Ceramics, Collegiate News, etc.

TABLE 22

NUMBER AND PER CENT OF PERIODICALS IN JARVIS LIBRARY BY A SELECTED LIST OF INDEX TOTALS

| | A Index Number | B Jarvis Library Number | C Percent (B/A) |
|---|---|---|---|
| Educational Index | 189 | 81 | 42.85 |
| Reader's Guide | 128 | 64 | 50.00 |
| International Index | 190 | 68 | 35.79 |
| Farber List | 601 | 194 | 32.28 |

Textbooks. Textbooks used for instruction and the development of basic skills in all areas and in all grades are available. Table 23 shows the extent of the textbook collection in the Curriculum Library.

TABLE 23

CURRICULUM LIBRARY TEXTBOOK COLLECTION BY GRADE LEVEL

| Grade Level | Number of State Adopted Texts | Number of Out-of-Adoption Texts | Total |
|---|---|---|---|
| 1 | 41 | 95 | 136 |
| 2 | 50 | 90 | 140 |
| 3 | 30 | 39 | 69 |
| 4 | 48 | 62 | 110 |
| 5 | 61 | 82 | 143 |
| 6 | 56 | 75 | 131 |
| 7 | 54 | 76 | 130 |
| 8 | 54 | 80 | 133 |
| 9-12 | 370 | 174 | 544 |
| Total | 763 | 773 | 1,536 |

tween 1965 and the early part of 1971, the College received $68,806 from these sources.

## The Curriculum Library

In addition to the regular collection, Jarvis also has a Curriculum Library which is of special value in the training of future teachers. Included in its offerings are 1,537 state (Texas) adopted and out-of-adoption texts used in grades 1 through 12. Making them available for study to those students who plan a career in teaching is a very valuable service. It permits the students to know the contents of the texts in courses which they will teach, the approaches which will be used, and the emphasis which is to be placed on various areas. It permits a review of the material with which they as teachers will be expected to be thoroughly familiar. The content of this Library is as follows:

Co-Curricular reading. There are 374 books of juvenile fiction, 244 books for young adults, and 157 juvenile biographies. These include adventure stories, biographies, historical fiction and non-fiction, and stories of pets and youthful heroes.

Other Materials. There are IBM journals on programmed instruction, bulletins of the American Physical Society, brochures listing available audio-visual materials for science and mathematics teachers, and copies of the American Scientist since 1959. There are catalogs from approximately 100 institutions of higher education; and the shelves hold hundreds of journals and magazines on science.

In Mathematics there are 84 books and 6 copies of a programmed unit in algebra. There are sets of cards to be used in teaching the fundamentals of algebra and mathematical bases for management. There are series 1 through 6, parts 1 and 2, of a set of cards to be used in making various mathematical decisions.

The collection in this Library is, of course, supplemental to the resources found in the Main Library.

## Selected Facilities

The Olin Library and Communications Center is a two and one-half stody, air-conditioned brick structure. The gross area of the building is 34,640 square feet, with 22,567 square feet of assignment area. There are 27 rooms in the building.

The building, presently provides space for offices for the Department of Education, for six regular classrooms and specialized learning spaces for instruction in language and reading, and for facilitating the use of programmed learning materials, telelecture equipment, and television equipment in academic work. It has been so constructed that, when space now used for classrooms and offices is no longer required, the floor space of the Library can be enlarged by removing non-load bearing walls to a capacity of 500 seats and a 300,000 volumes space.

The Library proper is located on the main floor and the mezzanine. The main floor provides space for card files, reference works, the circulation desk, reserved materials (books, tapes, records), periodicals, filing cabinets, browsing areas, staff offices, processing space, stace areas (001-399), two faculty and staff lounges, a staff kitchen, one conference room, display cases, the Curriculum Library, office of the Library Director, and offices and classrooms as mentioned above. Seating is available on the main floor for 218 persons. The number includes the seating in the Curriculum Library and the conference room, which students use when it is not needed for conferences.

Near the east lounge area on the main floor is a file cabinet containing course syllabi and outlines, picture files, biographical pamphlets, vertical files, book lists, author listings, vocational data, and requirements for teacher education programs, by states.

Sears in the foyer have not been counted in the main floor Library seating although the foyers are designed and used for group study or informal discussions.

The mezzanine houses about two-thirds of the general collection of books (400-999), as well as bound periodicals, biological abstracts, and college catalogs. In addition, the mezzanine provides seating for 73 persons. The stacks area on the mezzanine is capable of holding approximately 15 percent more books if racks are extended by one section.

The Processing area consists of a large room opening out of the office of the Library Director. At present, over 500 books are waiting to be processed. The Library Director does not believe this area is large enough even for present needs. It is located on the south side of the building, has excellent lighting, is conveniently located between the staff lounge and the reserve area, and has numerous work tables, shelves, and storage closets.

## Evaluation and Recommendations

The Olin Library and Communication Center has only one conference room, no smoking rooms, no typing-study rooms, and no specific reading rooms. The location of most of the journals is inconvenient, and the space provided for the journals is too small. As the enrollment increases, these factors may be important. Many students need to type papers but have no typewriters of their own or no place that is quiet enough to work. Not all dormitories are air-conditioned; and, as a result, many students prefer to study in the air-conditioned Library, where it is more comfortable. Since some students study better together in small groups, small rooms should be available where students would not disturb the quiet of the library reading room.

It is recommended that the College should.

1. Increase the collection on microfilm as needed.

2. By 1976, increase the number of books, microfilm, and microfiche, to 115,000 or 120,000 volumes.

3. Secure, by 1974, some type of information retrieval system and dial access to link areas such as the Library, the Media Center, Reading Laboratory, Language Laboratory, Science Laboratories, and others.

4. Strengthen, continuously, the library staff, and improve the salaries of staff members.

5. Install a teletype hook-up with state supported as well as private colleges so that Jarvis may be able to obtain volumes from these other sources.

6. Utilize the rooms in the Library and Communication Center as they are vacated by the departments now using them for special collections, a museum, and an art collection. (Rooms should be vacated at least by 1973).

7. Provide more equipment and space for audio-tutorial instruction.

8. Provide quality cassette tape players for the checking-out of cassettes by students.

9. Expand the television system to the total campus.

10. Provide an adequate, balanced collection of books and materials to support the curriculum, partly in the form of modules.

11. Purchase several microfiche readers and at least two microfilm and microfiche reader-printers.

12. Increase the Library budget to meet the needs resulting from proposed curricular and instructional changes.

## CHAPTER X

## PLANNING CHANGE

### The Process of Planning Change at Jarvis

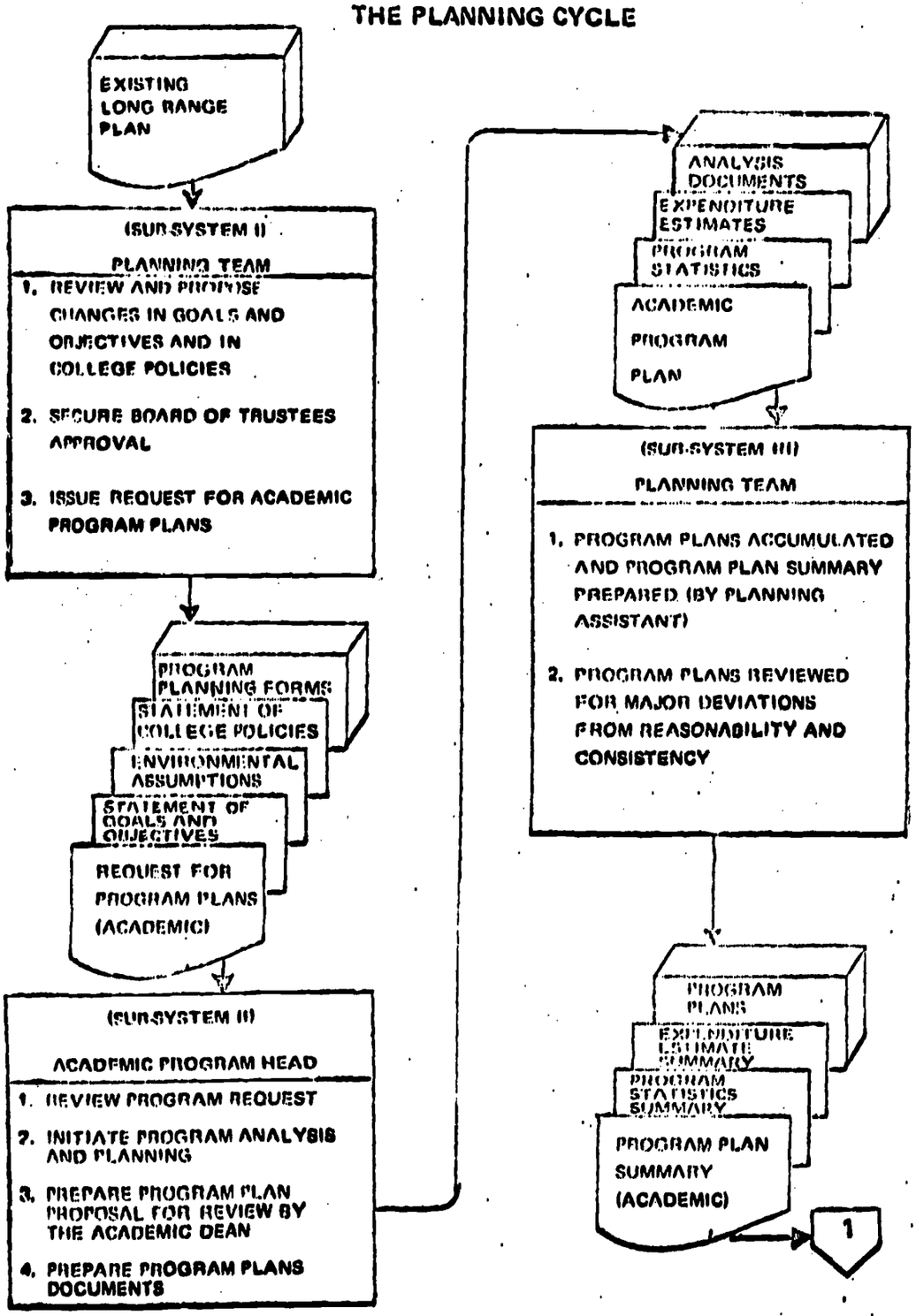
The basic sub-system for the realization of present College goals exists in complete design and is described in the Jarvis Operating Procedures for Planning and Budgeting. This sub-system has received approval from the Board of Trustees.

The planning system (a college sub-system) is composed of nine components or sub-systems. The process executed through the nine sub-systems involves four groups: (1) The Planning Team which includes the College President (Chairman), a Planning Assistant (Secretary), the Academic Dean, the Dean of Student Affairs, the Chief Fiscal Officer, the Director of Development and Public Relations, a Faculty Representative and a Student Representative. (2) The Analytical Studies Group which includes two faculty members (one is chairman), the Planning Assistant (Secretary), a Business Office Representative, the four Academic Division Chairmen, three Support Services Representatives, two student Representatives and Ex-officio professional advisors, as needed. (3) The Academic Division Chairmen in their role as academic sub-system managers with data on projected academic needs. Support Services in their role as facilitators of the academic process and the general College operations with data on the kinds of supporting activities required by the projected academic and general needs. (4) The Business Team in its role as internal accountants and fiscal managers with data on projected assets and income to be available to fulfill the College purposes and objectives.

The boxes in the planning cycle chart contain listings of the activities of the nine sub-systems in which the four groups are involved. The flow of information between components and the direction of interaction among the groups are indicated by the direction of the arrow head. The design allows for wide participation in the planning process. Every element of the College is represented at some point in the process.

The planning cycle is initiated each year by the Planning

## THE PLANNING CYCLE



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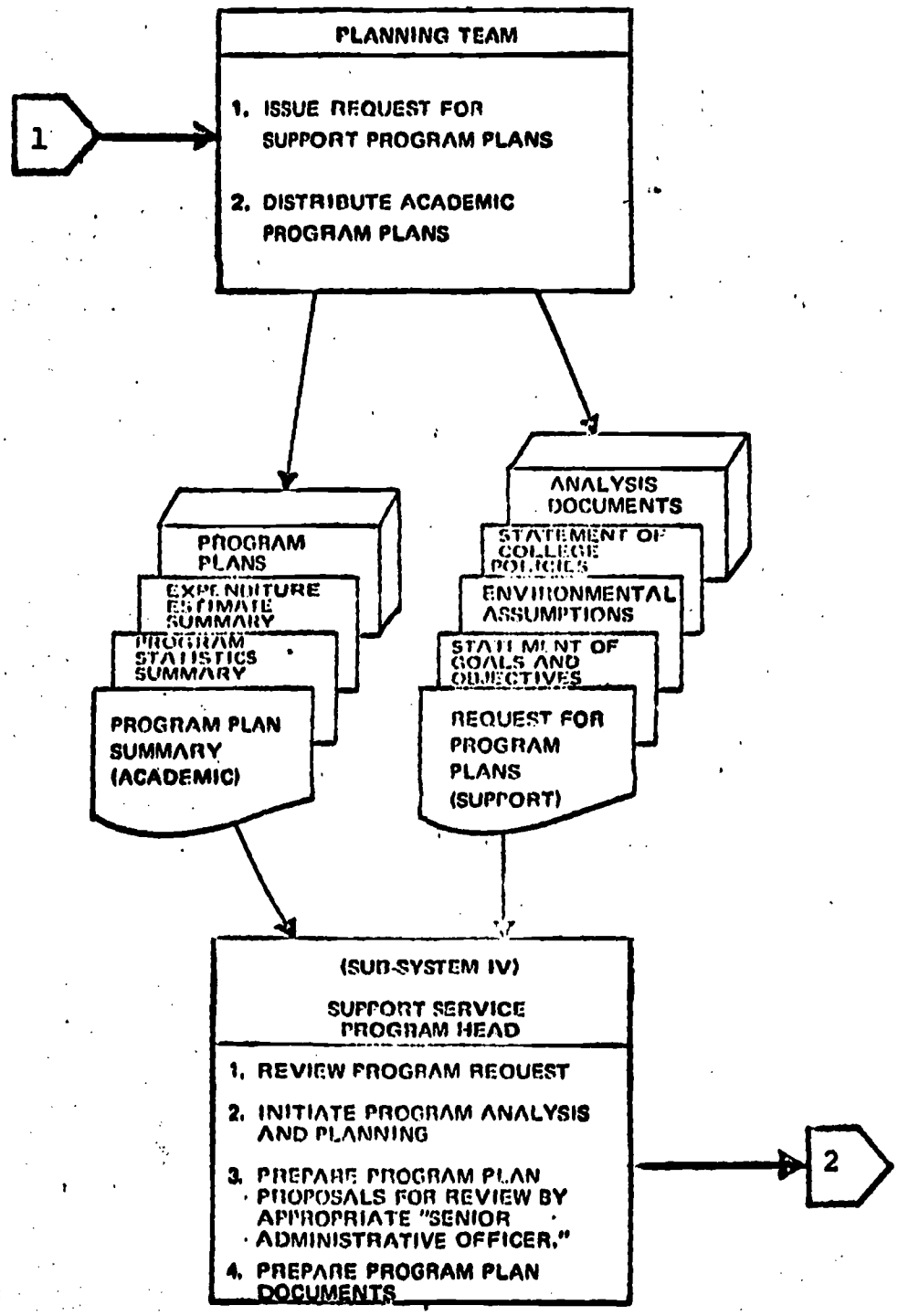

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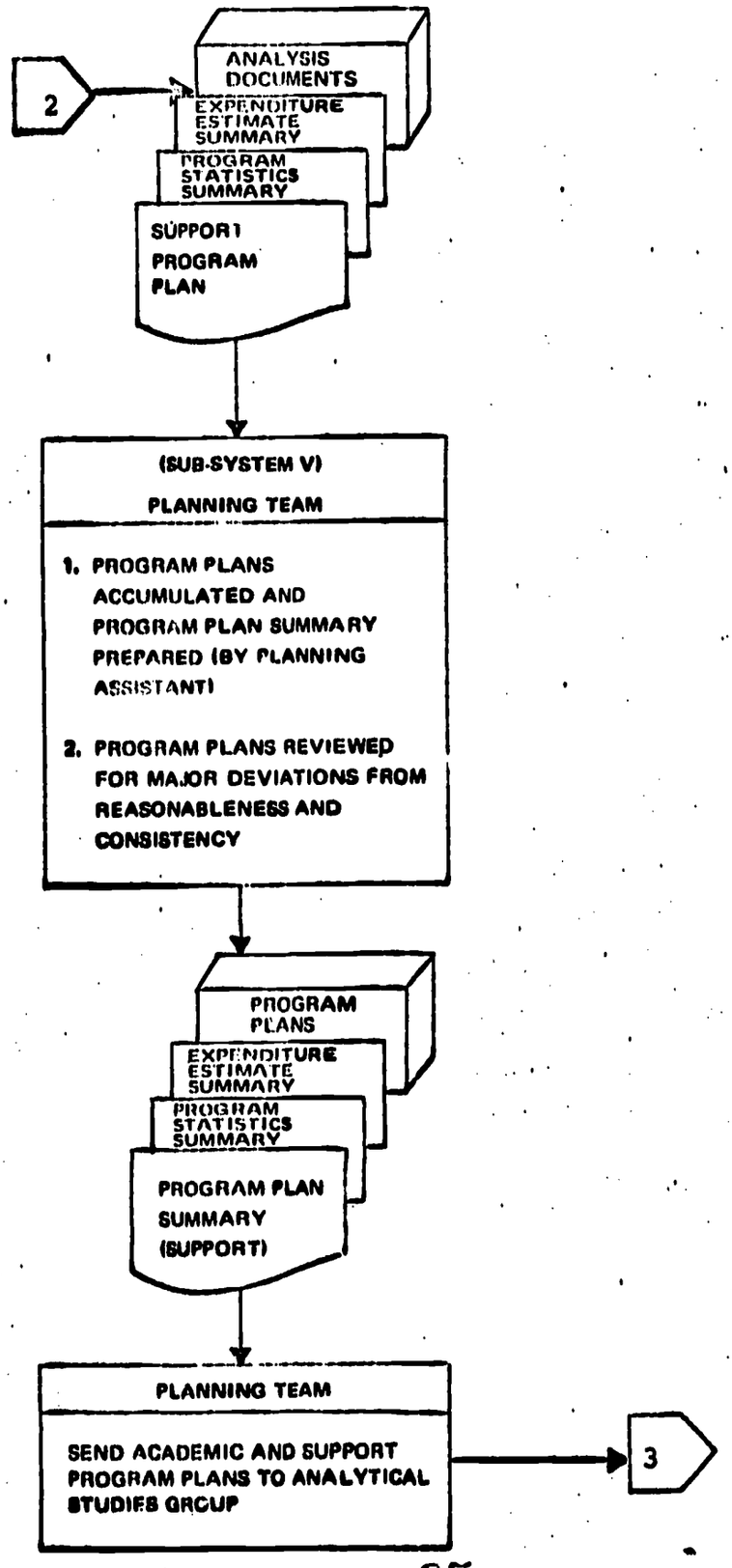

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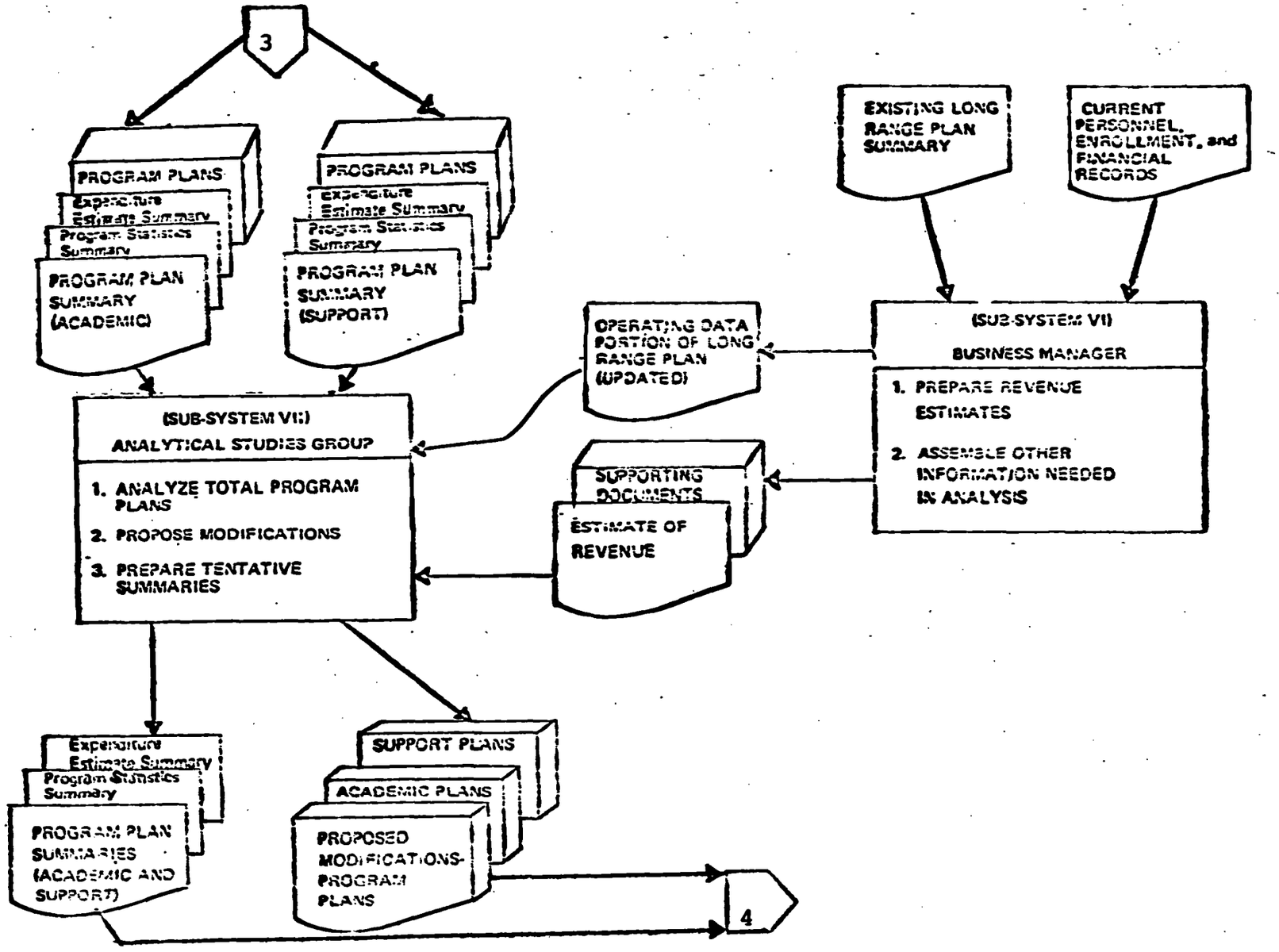

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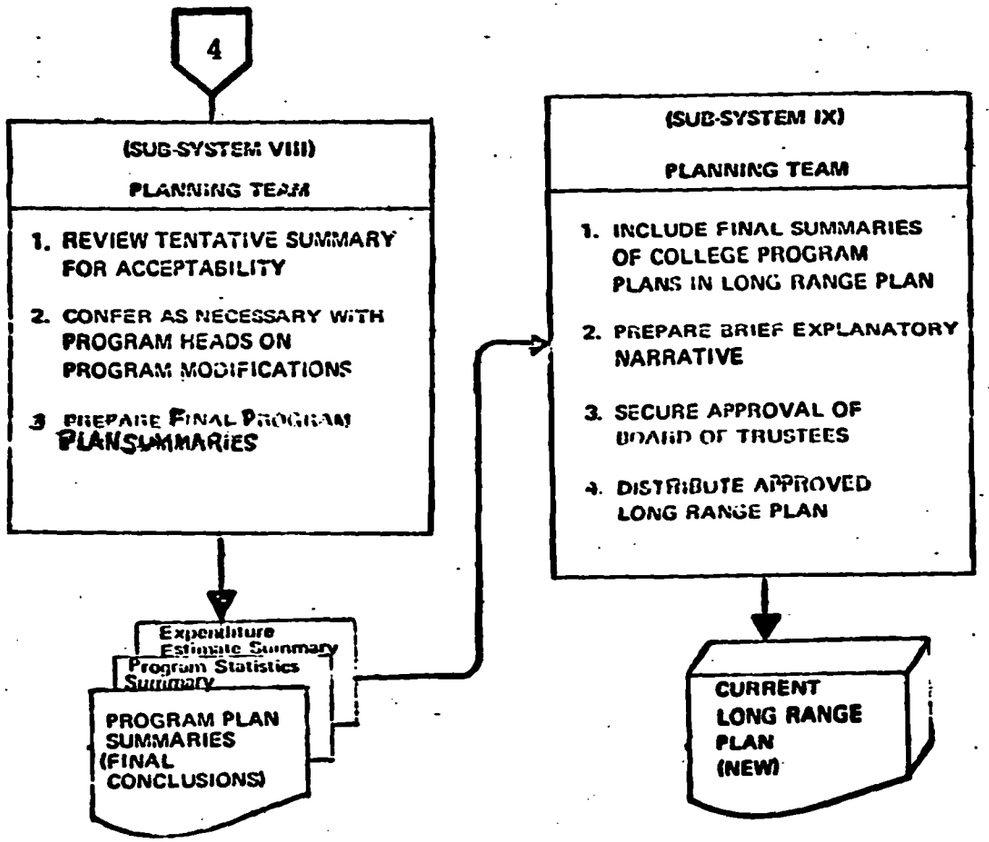


**CONTENTS OF LONG RANGE PLAN**

1. EXPLANATORY NARRATIVE
2. STATEMENT OF GOALS AND OBJECTIVES
3. EXTERNAL ENVIRONMENTAL ASSUMPTIONS
4. STATEMENT OF COLLEGE POLICIES
5. HISTORICAL OPERATING AND STATISTICAL DATA
6. PROGRAM PLAN SUMMARIES
7. LONG RANGE PLAN SUMMARY

Assistant and the Planning Team. The planning process is summarized in Chart 3. The cycle begins with the Planning Team reviewing and revising the assumptions stated in the current plan about the environmental factors as they are likely to affect higher education.

## Evaluation and Implications

The planning process is a vital cooperative college activity. The dynamic nature of the environmental system in which the college exist demands this type of formal planning system. Informal approaches to planning relay too heavily on the intuition as a basis for decision and are more congruent with former slow changing environments than the present dynamic ones.

The data needed for input in todays formal planning models need to be more accessible than was allowable with informal models. Increased use of computer services for information processing will be required before the present formal planning system at Jarvis yields maximum benefits.

The form of some of the input data in the present formal system is traditional and will require a relatively small number of modifications before a modular and systems approach to instruction and learning is fully implemented. Where the current formal planning model or system calls for number of courses, teacher-students ratios, number of student seats or stations, etc., the modular and systems approach will require input of such data as the rate of flow of students through certain facilities, the rate of student progress in meeting module and component criteria, the flow and frequency of faculty-student interactions in learning experiences. Further, it must be noted that not all College planning is accounted for through the present formal design. For example, the Board of Trustees may see the need to revise the College investment plan and invest in stock "A" rather than stock "B." Although it may utilize the professional expertise of the faculty in the Department of Business and Economics and The Board's investment activities logica-ly and directly affect the long range plans of the College, any such action is not called for as part of the long range planning document produced through the present system. The fact that not all college planning is accounted for in the long range planning is not so much a recognition of weakness in the planning process at Jarvis as it is an awareness of the complexity of the directed change process in any College or University.

## CHAPTER XI

## OVERVIEW, OUTCOMES AND RECOMMENDATIONS

### Overview

Jarvis College is a private, independent, non-sectarian Arts and Sciences traditionally Black college with a special relationship to the Christian (Disciple of Christ) Church. It is accredited by the Southern Association of Colleges and Schools and approved by the Texas Education Agency. Graduates in teacher education programs typically receive the degree of Bachelor of Science in Education. Other graduates receive the Bachelor of Science or Bachelor of Arts degree.

After demonstrating an interest in reconstituting their respective teacher education programs, Jarvis and nine other developing colleges and universities were invited by NCERD to submit proposals dealing with the relevance of the "new models" for developing institutions. The studies proposed were part of phase II of the NCERD's Teacher Education Report.

In the proposal submitted by Jarvis and subsequently funded, the basic theoretical position taken was that effective goal-directed change in teacher education programs required a total institutional thrust. This perspective was based largely upon knowledge of the nature and dynamics of social systems and general systems theory. Jarvis, therefore, operated from the following position. When projects designed to result in innovations are just added to existing structures or when such projects do not contain components designed to interface the new elements introduced with the existing system, the probability of effective goal attainment and change are low. The Jarvis Teacher Education Project was designed to be a total institutional thrust toward effective changes in the existing college programs and support services and other sub-systems. These changes should provide more flexible and relevant programs a more effective and efficient learning environment, and an increase in the flow of data for analysis, evaluation and planning.

In order to maximize the utilization of limited resources, Jarvis and the nine other developing colleges and universities funded as part of phase II of NCERD's Teacher Education Project formed the Consortium of Southern Colleges for Teacher

Education. The consortium facilitated the flow of information between the original model builders and member institutions and provided a "laboratory" within which to experiment with new ideas and materials.

The Jarvis Task-Force (consisting of faculty members, students, administrators and alumni) made maximum use of the project funds for this study by interfacing them with those available for the regular institutional Self-Study associated with the College's membership in the Southern Association of Colleges and Schools. Further, the Task-Force reviewed the reform efforts of Jarvis between 1959 and 1969.

Development during the past ten years included (a) the development and implementation of the first phase of a Master Building and Capital Improvement Plan, (b) the improvement of management of the College by developing a manual of Operating Procedure for Planning and Budgeting in 1969 and a Management and Operations Manual in 1968 (revised in 1969), (c) developing a long-range planning model for Jarvis and (d) providing for faculty and staff development through in-service institutes and study leaves to increase instructional skills, to improve curricula offerings and to improve special services to students isolated from normal opportunities in American life.

## Selected Outcomes

### The Jarvis Task-Force: Agents for Change

In order to transform a college or university from a traditional orientated and not well defined system structured for serving a slowly changing society to a well-defined and flexible system organized for serving a dynamic society, one of the major factors one must consider is the number and characteristics of the change agents employed. On almost every campus there are persons with innovative ideas who would like to offer them as possibilities for improving education. Many of the persons find that promoting an innovative idea in a traditional environment without being sure that others will understand the idea or ones motivation for suggesting its adoption is a difficult situation to face. If, however, several persons with ideas for change are provided a means of interacting with each other in an environment where unique ideas are expected and welcomed, the necessary critical mass and human resource base for institutional change are established. The Jarvis Task-Force served as such a critical mass and human resource base for the present study. Each member of the group

brought valuable ideas and experiences to the study as he or she represented one of the relevant subgroups in the College Community during the present period.

The Task-Force activities indluced: (1) formal and informal exchanges among themselves, (2) a careful study of the "new models and other documents, (3) interviews and friendly debates with the original model builders, (4) on site visits to experimental and demonstration projects, (5) participation in state, regional and national meetings dealing with innovations in education at the several levels and (6) cooperative planning and model building activities with the other member of the Consortium of Southern Colleges. Out of these many activities a core set of College change agents were developed.

The members of the Task-Force raised questions, provided information, set examples for others to follow, and in many other ways helped to create the facilitating environment for positive change. In brief, Task-Force members lead the College Community in a careful study of every aspect of Jarvis College as the College reconstitutes itself for a more flexible, relevant and effective role in creating a viable society.

## SIGNIFICANT CONCLUSIONS

The Task-Force concludes:

1. That the Jarvis Christian College programs and operations function in such a way as to fulfill its' stated mission in higher education.

2. That the Jarvis Christian College purposes might be more effectively met by the adoption of systems methods in <u>each</u> area of the College's operations.

3. That the NCERD Teacher Education Project or "new models" program has relevance not only for departments and colleges of education but also Arts and Sciences and higher education in general.

4. That an understanding of the nature and functions of systems and sub-systems is basic to total college development.

5. That most present college personnel, with in-service and other training or education,

can and will adjust to new methods of operation.

6. That a total institutional thrust is required in the reconstitution of teacher education or any other system component.

## Recommendations

A comprehensive study of the "new models" in higher education suggests for Jarvis Christian, Developing Institution, The Private sources of educational support and Public sources of educational support the following recommendations, grouped according to their reference either to process and procedural reforms, to changes or modification in program development, or to curriculum and instructional improvements.

## RECOMMENDATIONS FOR JARVIS

A. With Respect to Process and Procedural Reforms, it is recommended:

1. That admission criteria be re-stated to group by class all information relative to the several classes of admissions.

The objective is to facilitate the process through which the applicant locates particular criteria to be met.

2. That the admissions form be simplified and made to serve all College information needs.

The objective here is to speed up and ease the flow of non-redundant information between the applicant and the several areas of the College requiring data for proper admission. The relevant information from the type of form here recommended might be processed and printed by computer to increase the speed and accuracy of data to the appropriate office(s) for use.

3. That the system for institutional research be expanded.

The objective is to provide relevant data to the academic and other support services on an accelerated and continuous basis. Concerns with effectiveness of even the sub parts of courses (modules) and teaching methods could thus more readily be added to present concerns with plant

utilization and long range planning.

4. That systems analysis and designing or redesigning techniques be employed in all areas of curriculum development, evaluation, and change.

The objective is to develop, evaluate and implement curriculum components which serve operationalized objective and fit together in an efficient system to achieve stated purposes. This process should further reduce the probability of program and course proliferation and of inefficient redundancy in human and material resources. This process should increase the probability of real and effective student-teacher encounters.

5. That the computer services to the campus be expanded.

The objective would be to establish a center (or centers) with an appropriately sized computer which would serve the educational program and the several support services. The benefits to be derived from the increased flow of data for viable decision making place this need in a top priority category when thought of in terms of advanced communication systems.

B. With Respect to Program Development, it is recommended:

1. That efforts continue to increase the effectiveness of the General Education Program through experiments utilizing individualization, new content utilizing internal faculty resources more effectively and concomitantly reducing needless repetition among course components.

Here, the objective is to devise economical and productive ways to provide for broad understandings in the arts and sciences which will put in-depth study in its proper perspective and reduce the present General Education requirement (which is 50 per cent of the 124 hour degree program).

2. That the General Education Component of the educational program include studies in the symbolics and processes of information (in linquisitics, oral and written language, mathematics, logic, information theory), science (life, physical, behavioral,

social), and of the several humanistic areas.

The over-all objective is to insure a broad and basic program of liberalizing arts and sciences in general education in which the proportion of each element is determined by the objectives of the students program and the number of ways in which these objectives may be achieved.

3. That the present shift continue from remedial courses to course or degree program components which incorporate both remediation and enrichment during a normal progression toward graduation.

The objective is to enable each student to receive any remediation required at a point where normal progress is blocked by the lack of specifically determined knowledge and skills or to enable the student to progress at an individualized rate with expanded enrichments. This integration of experiences would seem to make the academic objectives more meaningful and the required work more rewarding.

4. That a standing, college-wide committee be established to study the future as it might affect the role and scope of higher education with respect to needed reforms and/or change.

The objective is to insure that the several committees and offices of the College have the most recent and reliable projections in a desirable direction while planning orderly change in relevant college areas in ways which enhance the role of the College in the society and increase the life chances of graduates of the College.

C. With Respect to Curricular and Instructional Improvements and Expansion, it is recommended:

1. That efforts continue to develop local norms and a data bank for use in testing, aimed at predicting success in educational development among students.

Here the objective is to provide more effective means of assessing human potential, to serve as a basis for providing equal learning opportunities for self realization on the part of persons with diverse academic needs. Through the establishment of local norms, such considerations as the nature, degree, and associations of pre-, in-, and post-college variables would be paramount.

2. That efforts continue toward increasing the enrollment of men, non-blacks, and other students from over a wide geographical radius.

The objective is to provide equal opportunity for educational development for all, regardless of sex, race, socio-economic status, religion or region. No less important as an objective is the increased opportunities for enriched human relation learnings inherent in the confluence of cultures dimension.

3. That studies of new educational achievement evaluation systems be expanded.

The objective of this recommendation is to establish an evaluation system which would more accurately and meanfully reflect the individual cognitive, affective and psychomotor achievements of each student.

4. That other formats for curriculum organization (both as to content and methodology) continue to be explored.

The objective is to provide alternative operations and development so that curriculum content will be available to a larger number of students in a form which fosters the integration of this content and insures continuous growth. For example, the several modules (instructional units) which might make up the descriptive statistics component in the Mathematics Department might in the Education Department make up the measurements component.

5. That efforts to improve instruction be expanded to maximize staff involvements in in-service workshops, relevant institutes and study leaves.

The objective is to systematically provide varied learning situations for the acquirement of necessary new information, skills which are future oriented, thereby enhancing in-house collective expertise.

6. The future master plan modifications increase the opportunities for individualization, laboratory and world of work experiences.

The objective is to make maximum use of campus space and facilities which at the same time accommodate relevant learning experiences on campus and which are keyed to make further a reality the Jarvis held conception of the

college as a network of resources and exposures for learnings and not the outmoded concept of a college as a geographical spot.

7. That geography courses be transferred from the Division of Social and Behavioral Sciences to the Division of Physical and Life Sciences and Mathematics and combined with Earth Science.

The objective is to reduce the number of small, non-departmental areas.

8. That Computer Science be added to the list of minor concentrations as resources and opportunities become available.

The objective is to provide new and expanded opportunities for multiple use of resources such as those to be found in the recommended Computer Center.

9. That an applied sequence in Physics Concentration be developed with one emphasis on Electronics.

The objective is to provide a new opportunity through which students might prepare for direct employment in industry and/or further study in physics.

10. That music be reinstated as a major concentration when proper facilities and appropriate resources are available.

The objective is to meet more fully the needs and interests of an increasing and substantial number of the students who enroll at the College.

11. That a broadcasting concentration be developed (which will use) to a great extent existing curriculum content and resources.

The objective is to rnrich curriculum content components to include occupational skills training through multiple use of presently owned technological equipment (e.g., closed-circuit TV and faculty capabilities).

12. That a sequence of study be established to provide training in Social Welfare by using existing resources.

Here, again, the objective is curriculum enrichment.

13. That Para-Medical and Pre-Medical sequences be established by using existing campus resources (and those already contracted for) in conjunction with non-campus cooperative field-based resources which are available.

The objective is to offer added learning opportunities which are in tune with growing demands of society.

## RECOMMENDATIONS FOR DEVELOPING INSTITUTIONS

The experiences of the Jarvis Task-Force with the phase II activities suggest the following recommendations for developing colleges and universities.

A. With Respect to the "new models" and the systems approach which they represent. It is recommended:

1. That some system which provides for all the functions included in the sub-systems of these "new models" is vital for effective educational planning and development.

2. That institutions avoid "reinventing the wheel" and at the same time develop their own model.

3. That institutions seek new means of cooperating in model building and development.

B. With respect to planned institutional change, it is recommended:

1. That a total institutional thrust be made when major and lasting changes are desired.

2. That semantic difficulties in communication between such areas as teacher education and humanities not be allowed to divert the institution from the fundamental and vital issures and task.

## RECOMMENDATION FOR PRIVATE SOURCES OF EDUCATIONAL SUPPORT

The Welfare of the whole is determined to a large extent by the welfare of the parts. Developing institutions continue to make significant contribution to the well being of the American Society. It is, therefore, recommended:

1. That the national welfare and the conservation and development of a national asset be supported by increasing human, material and financial resources available to developing institutions for systematic reform purposes.

2. That support to these institutions be given on such terms that realistic long range planning on a systems and continuing bases is facilitated.

RECOMMENDATION FOR PUBLIC SOURCES OF EDUCATIONAL SUPPORT

A. With respect to the "new model" it is recommended:

1. That the all federal government agencies related to education initiate and/or continue to support such developments and their subsequent implementation.

2. That the federal government increase its level of funding to those developing colleges and universities which indicate a willingness to make a total institutional thrust in educational reform using the approaches suggested by the "new models" project results.

B. With respect to Planning, it is recommended:

1. That the systematic long range educational planning process at the National, regional and state levels include public and private developing colleges and universities.

2. That government and developing institutions as a matter of reiterated public policy work together in educational planning and development at the state, regional, and national levels. The desired educational "future" will be shaped by stating objectives operationally by planning systems comprehensively, by designing for effectiveness in evaluation, flexibility and relevance, and by implementing change humanely, comprehensively and decisively.

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APPENDIX-A

TASK FORCE

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Mr. C. W. Clift
Chairman, Division of Physical and Life Sciences and Mathematics
Dr. B. B. Wellmon
Head of History Department
Dr. Lorme Holmes
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Dr. E. P. Langford
Director of Psychological Services
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Instructor, Education Department (and Associate Project Director (until February, 1970)
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APPENDIX-B

ORIGINAL SELF-STUDY COMMITTEES
1969-70

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Mrs. L. F. Smith, Resource
Mrs. L. F. Smith, Resource
Mrs. D. Morrison, Resource
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Mr. Melvin McGill, Student Representative

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Miss Betty Robinson, Student Representative
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VIII. PHYSICAL PLANT

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Mr. Claude Walker
Mr. D. L. Brooks, Resource
Mr. C. M. Matthews, Resource
Mr. R. T. Hughes, Resource
Mr. T. E. Thomas, Resource
Mrs. J. R. Clayborn, Recorder
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-Resource Persons As Needed-
Miss Barbara McDaniel, Recorder
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Mr. M. A. Khan
Dr. Biswajit Sinha
Dr. G. Frank Vrsic
Mr. Robert B. Wilson
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X. (cont'd)

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Dr. J. O. Perpener, Resource
Dr. E. C. Powell, Resource
Miss Judy McMillan, Recorder
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XI. PLANNING FOR THE FUTURE

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Mr. A. Robinson
Mr. T. L. McGill
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Mr. D. L. Brooks, Resource
Miss Patricia Cartwright, Recorder
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EDITING COMMITTEE

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APPENDIX-C

SELECTED ITEMS FROM THE
JARVIS COLLEGE PURPOSE Q-SORT (Copy)

Item 4. "Enable its graduates to compete with graduates of other colleges." Trustees ranked this item 9, freshmen and faculty ranked it 8, alumni and sophomores ranked it 7, juniors ranked it 6, faculty ranked it 5 and CRAM ranked it 4. Obviously, wide differences of opinion exist on the item.

Item 5. "Prepare students for graduate study." Interestingly enough, this item is ranked highest, 9, by the group closest to graduate work, the seniors. Trustees ranked the item 8, CRAM freshmen and sophomores ranked it 7, alumni ranked it 6, and faculty ranked it 5. The item is at least of average importance for each group and for most groups it is an important item but not as important as for the seniors.

Item 9. "Inspire students to become worthy citizens." This item was ranked 7 by juniors, 4 by CRAM, and 5 or 6 by the remaining groups. The difference may well be related to the fact that at this moment becoming a worthy citizen is not the greatest concern of CRAM students.

Item 11. "Help students discover their role in a democratic world." Juniors ranked this item 8 while freshmen and trustees ranked it 4. The remaining groups ranked it 5 or 6. Again, personal or social development is ranked higher by a student group than by the trustees who ranked it quite low.

Item 15. "Guide students in selecting reliable fields of work." This item was ranked 8 by freshmen and sophomores and 5 by faculty. Alumni ranked it 7 while the other groups ranked it 6. Whereas the freshmen and sophomores feel the need for more vocational guidance, the faculty probably sees the role of the institution to be more liberal.

Item 16. "Develop students with the qualifications needed to compete successfully for employment." Whereas the trustees ranked this item 4, CRAM ranked it 9. Alumni, sophomores and juniors ranked the item 8 and faculty ranked it 7. Freshmen and seniors ranked it 6. Obviously, considerable differences of opinion about the role of the institution in respect to job preparation exists and the greatest difference is that separating the trustees from the remainder of the group.

Item 17. "Develop attitudes and appreciations necessary for effective participation in a democratic society." Juniors ranked this item 7 but CRAM, freshmen, and seniors ranked it 4. All other groups ranked it 6 with the exception of sopho-

Item 17. (cont'd). mores who ranked it 5. Thus, except for the juniors, all student groups ranked the item lower than the other groups.

Item 18. "Develop a deep understanding of people." Seniors ranked this item 7, CRAM and juniors ranked it 6, freshmen and sophomores ranked it 5, alumni ranked it 4, and faculty and trustees ranked it 3. The personal and social goals of the students appear to be clear.

Item 19. "Give students an accurate picture of the black man in America." This item was ranked 7 by CRAM, freshmen, and juniors and 6 by seniors. Freshmen, though, along with alumni and faculty, ranked it 4 and trustees ranked it 3. Again, the personal and social is of greatest importance to students and least importance to trustees.

Item 20. "Develop sensitivity and commitment to bettering the human condition."

APPENDIX-D

Selected Instructional Modules

Education

Methods of Teaching
Education 443
Specific Objectives for Elementary Majors

The following six tasks comprise the elementary content section of Education 443. These may be completed at any time during the eight week period and can be executed in any order.

No student will receive credit for Education 423 until all six tasks have been completed.

Task I - Handwriting
Module 443.01

Objective: Write the following selections in cursive and manuscript writing (following an approved style) on the chalkboard and on paper.

Methods:
1. Select an approved writing style from a handbook in the Curriculum Library.
2. Practice writing the given selections.
3. Submit the selections to the instructor on paper.
4. Place the first selection on the board and notify the instructor.
5. Write the second selection in the presence of the instructor.

Resources: Writing Manuals in Curriculum Library

Selection # 1 I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation, under God, indivisible, with liberty and justice for all.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Selection # 2 The quick red fox jumps over the lazy brown dog.

Evaluation: Instructor's judgment

## Task II - Bulletin Board
## Module 443.02

Objective: Plan and execute a bulletin board to supplement or as a visual aid for one of the lessons you learn.

Methods:
1. Plan a lesson.
2. Schedule a time for using the bulletin board.
3. Prepare the bulletin board.
4. Notify your instructor
5. Have classmates critique the bulletin board.

Resources:
1. Bulletin Board Guides, Media Center
2. Curriculum Guides, Curriculum Library
3. Picture file, Library
4. Supplies, Media Center

Evaluation: Instructor's judgment
Student's critiques

## Task III Parent - Teacher Conferences
## Module 443.03

Objective: Role play parent-teacher conference in two situations.

Methods:
1. Select a situation from file # 1.
2. With a peer, play out the situation in the presence of a tape recorder.
3. Play the tape and discuss it with a group of at least five peers. (Notify the instructor of your discussion).
4. Repeat the procedure, playing a different role; e.g. if you played the role of teacher, play the role of parent.

Resources: Situation file in Learning Center Tape Recorder

Evaluation: Peer evaluation
Self evaluation

## Task IV - Diction
## Module 443.04

Objective: Call out spelling words and read a story on tape.

Methods:
1. Select a spelling book, practice calling out words.
2. Select a passage of no less than three and no more than five minutes from a children's book.

Methods: (cont'd)
3. Tape the words and the passage.
4. Submit the tape to your instructor.

Resources: Spelling text, Curriculum library, Literature book, Tape recorder

Evaluation: Instructor's judgment

## Task V - Idea Collection
## Module 443.05

Objective: Make a collection of poems, sayings, pictures, bulletin board ideas, songs, art projects, games, etc., which may be useful for holidays, seasons, or units.

Methods:
1. Begin collecting "ideas."
2. Put ideas on cards or loose leaf notebooks.
3. Submit idea collection to instructor.

Resources: Curriculum library
Periodicals
Media Center
Library books

Evaluation: Instructor's judgment

## Task VI - Observation
## Module 443.06

Objective: Observe two hours in an elementary classroom.

Methods:
1. Check calendar of events to find days and center for observation.
2. Make arrangements for transportation.
3. Follow "Pointers for Observing" in file # 2.
4. Submit your observation report to your instructor.

Resources: File # 2
Observation center

Evaluation: Instructor's judgment

Education 363
Educational Psychology
Spring, 1971
Mary Wellmon, Instructor

Educational Psychology is a course designed to acquaint the prospective teacher with the teaching-learning process. Special emphasis is placed on selected theoretical orientations, the participants in learning, and interaction within the classroom.

Module: YOU AS A TEACHER
363.01

Objectives: Students will list qualities which characterize an effective teacher.
Students will evaluate their personal qualities which will contribute toward their effectiveness as teachers and those which could be obstacles.

Methods: Class discussion of characteristics of effective teachers.
Small group and individual analysis of each student's personal qualities.
Individual written evaluation of his characteristics.

Resources: Cronback, Lee J., Educational Psychology
Highet, Gilbert, The Art of Teaching
Klausmeier, Learning and Human Abilities
Sorenson, Psychology in Education
"California Test of Personality Report Forms" (Testing Office)

Due: Reading Card # 1
Self Evaluation

Module: THE CHILD AS A LEARNER
363.02

Objectives: Students will discuss how a child's physical, mental, social, and emotional development affect him as a learner. Students will explain Maslow's therarachy of needs and apply it to education.
Students will discuss the influence of a child's self concept on his behavior as a learner.

Methods: Class discussion of the child as a learner.
Film on providing for individual differences.

Methods: (cont'd)
Lecture and Discussion of theories of Maslow and Combs.
Incidents from Teaching Problems Lab. # 1, 2, 4, 5, 6, 7, 17, 23, 32.
Film: "Understanding Individual Differences I & II"

Resources:

| | |
|---|---|
| Cronbach, Lee J., | Educational Psychology |
| Bernard, | Psychology for Learning |
| Eson, | Foundations of Education |
| Klausmeier, | Learning and Human Abilities |
| Jersild, Arthur., | Child Psychology |
| Combs, Arthur W., | Individual Differences |
| Sorenson, | Psychology in Education |

Due:
Reading Cards # 2 & 3
Exam

Module: THE CLASSROOM AS AN INTERACTIONAL SYSTEM
363.03

Objectives:
Students will become familiar with the concepts and procedures of interactional analysis.
Students will be able to interpret a sociogram.
Given hypothetical situations students will identify the kinds of interactions present in a classroom and make recommendations.

Methods:
Lecture - demonstration of interactional analysis.
Small group analysis of sociograms.
Filmed and written examples of classroom interaction analyzed in small groups.

Resources:

| | |
|---|---|
| Cronbach, L. J., | Educational Psychology |
| Eson, | Psychological Foundations of Education |
| Bany & Johnson | Classroom Group Behavior |
| Sorenson, | Psychology in Education |
| Flanders, | Manual for Interaction Analysis |

Journal of Education Psychology
Powell, E. C., "Working Papers"

Due:
Reading Cards # 4 & 5
Exam

Module: LEARNING
363.04

**Objectives:** Students will research and prepare a report on a major learning theory.
Students will show an understanding of the basic schools of thought through a comparative essay.
Students will evolve and write a personal theory of learning.

**Methods:** Lecture, Discussion, and Individual Research in learning theory.
Indi idual research and thought

**Resources:** Jones, Charles. Learning
Bigge, Morris. Learning Theory for Teachers
Reserve Book List

**Due:** Individual Report on Learning Theory
"A Theory of Learning"
Reading Card # 6
Exam

Module: FACTORS WHICH INFLUENCE THE LEARNING PROCESS
363.05

**Objectives:** Students can define and explain the role of the following in the learning process: motivation, retention, reinforcement, plateau of learning, practice, extinction, transfer (positive and negative), and generalization.

**Methods:** Lecture-Discussion
Incidents from Teaching Problems Lab.

**Resources:** Cronbach, Educational Psychology
Klausmeier, Learning and Human Ability
Loree, Psychology of Education
Monly, Psychology for Effective Teaching
Cruickshank, Incidents # 3, 8, 9, 26.

**Due:** Reading cards # 7, 8

Module: INNOVATIONS IN THE CLASSROOM
363.06

**Objectives:** Students can define each of the following terms: innovation, teaching machine, linear programming, branching, programmed instruction, team teaching, micro-teaching, c.a.i., module, individualized instruction, media.

Methods: Lecture, demonstration, individual research

Resources: Reserve Book List
Teaching Machines on campus

Due: Reading cards # 9, 10

ASSIGNMENTS DUE DAY INDICATED

"Any variation from due dates for assignments must be arranged prior to the date. Any late work will be accepted only when accompanied by a written contract signed by student and instructor."

(1) Reading Cards

Reading cards will be due at the conclusion of our study over the area. Each will consist of a complete bibliographic reference, a summary, and an evaluation written on one 5 x 8 card which also includes the student's name, course, and reading number. Only readings from periodicals are acceptable.

(2) Learning Theory

A Theory of Learning which will be the original work of each student based on the ideas of authorities will be required in liew of a term paper. However, the format of the paper should be that of a term paper. Any direct quote should be so indicated. Any paper with five uncorrected typing errors and/or misspelled words will be returned to the student as unacceptable.

APPENDIX-E

Biology

EXPERIENCE MODULE 101.04

Name and Title of Writer: J. F. Johnson

Objectives: Student will be able to list and describe the function of various parts of the vertebrate central nervous system.

Experience Module:

(1) Listen to short lecture (live or reco ded).
(2) Obtain and read handout sheet
(3) Watch film (Brain and Behavior).
(4) Perform laboratory exercise on nerve and muscle action.
(5) Discuss the results of experiment with the rest of the class

Special Materials Required: one frog, dissecting kit, three beakers, metal rod

Instructional Setting: Independent and small group

Filed Under: Biology, Physical Education, and Education

Prerequisites: A concept of the central nervous system of vertebrates as developed in module 101.03.

Evaluation: Student should be able to answer questions on the parts of the central newvous system and their functions.

Time: Three hours

EXPERIENCE MODULE 101.06

Name and Title of Writer: J. F. Johnson

Objectives: The student will participate in an ecological field trip, to observe, collect and classify animals and plants.

Experience Module:

(1) Participate in lecture-discussion on rules and regulation of field trips.
(2) Receive field equipment from instructor.
(3) While on field trip observe topography, dominant plants and animals, and collect specimens for laboratory classification.
(4) Carry specimen into laboratory for classification and preservation.

Special Materials Required: Cellophane bags, dip nets, insect net, killing jar, plant press, gallon jug

Instructional Setting: Large group

Filed Under: Biology, Ecology, and Research

Prerequisites: Plant and Animal classification Module.

Evaluation: Student's performance in the field.

Time: Six hours

Experience specified for: All Candidates, Arts & Sciences

EXPERIENCE MODULE 123.01

Humanities

Name and Tital of Writer: Margaret Jackson

Objectives: The student will label characters in plays.

Experience Module:

(1) Given a list of literary terms, the student will find the definitions.
(2) Students will read the following plays:
    *(a). "A Happy Ending"
    *(b). "The Family Meeting"
    (c). "Pygmalion" by Bernard Shaw
    (d). "Bad Seed"
(3) The student will discuss these plays orally.
(4) The student will label characters using these literary terms: antagonist, protagonist, villian, flat and round characters, plot, climax, and anti-climax.

Special Materials Required: Oxford English Dictionary: *Four Plays by Bernard Shaw. Jarvis' Library: 822.91 SLIP

New Black Play Wrights by William Couch Jr. Jarvis' Library: 812.5 C831n

Instructional Setting: Small Group

Filed Under: English, Drama, and Behavior Science

Evaluation: Student's ability to:

(1) State their opinions of each play,
(2) Give a characterization of the main characters,
(3) Classify the characters as a villian, a protagonist, etc.

Time: Three Hours

EXPERIENCE MODULE 123.02

Name and Title of Writer: Margaret Jackson

Objectives: The student will demonstrate in class his ability to act out a role.

Experience Module: The student will choose a character role in a play and perform parts of the character's role.

Special Materials Required: See handout sheet

Instructional Setting: Independent

Filed Under: English, Drama, and Behavior Science

Prerequisites: Module 123.01

Evaluation: Completion of the assignment is considered satisfactory.

Time: Three Hours

Mathematics

EXPERIENCE MODULE 174.09

Name and Title of Writer: C. O. Abungo

Objective: The student will demonstrate the ability to solve simple equations using game strategies.

Student Participation:
(1) See handout sheet
(2) Read materials listed in handout sheet
(3) Participate in demonstration with at least one other student.

Materials and Equipment: Three sets of objects with each set of a different color or shape (cups, blocks, etc.)
NOTE: You will not be allowed to use paper and pencil or chalkboard.

Evaluation: Solve two equations.

Instructional Setting: Small group

Time: Two Hours

EXPERIENCE MODULE 174.12

Name and Title of Writer: Burnis Johnson, et al.

Objective: To develop the ability to identify and construct the following kinds of sequences and series:

(a) Infinite Sequences
(b) Arithmetic Progressions
(c) Geometric Progressions

Student Participation:

(1) Write a paragraph defining and explaining each of the following:
    (a) Infinite Sequences
    (b) Arithmetic Progressions
    (c) Geometric Progressions
(2) Work Worksheet (M-IV-C) for construction of sequences and series

Material and Equipment: Worksheets, Teachings Machines, Transparencies

Evaluation: Teacher evaluation of paragraphs, and test

Time: Six Hours

EXPERIENCE MODULE 353.01

Name and Title of Writer: Powell, E. C., et al.

Objectives: The student will be able to list the factor or factors (variable or variables) in common uses to explain the subject matter included in Social Psychology from the 16th century to the 20th century.

Experience Module:

(1) Obtain handout sheet
(2) Do background reading
(3) Discuss in class or in a small group of with an instructor.
(4) Listen to audio-tape, if necessary.

Instructional Setting: Large group, Independent, Small group

Filed Under: Social Psychology, Sociology

Special Materials Required:
(1) Lindgren, 1969, pp. 1-20.
(2) Lindzey, G., "Handbook of Social Psychology," 1954.

Prerequisites: Knowledge of basic concepts in Sociology and/or Psychology.

Evaluation: Answer correctly eight out of ten objective questions.

Time: Four Hours

Experience Specified for: Arts & Sciences and Business

EXPERIENCE MODULE 453.06

Name and Title of Writer: Powell, E. C., et al.

Objectives: The student will be able to relate the concepts of social organization (the institutions of society) to the urban setting, with particular emphasis on urban buracracy and urban political processes.

Experience Module: The student will list and define the institutions of society and contrast their functions in the pre-urban or pre-industrial society and in the modern metropolitan community. The student will also make a search of the literature which describes the orgin of buracracy and the growth and effects of buracracy in modern urban life and make notes on this topic. Third, the student will contrast political processes of pre-urban or pre-industrial society with those of the modern metropolitan community, preparing notes for class discussion. Last, the student will participate in class discussion comparing his notes with those of other students, with special emphasis on conclusions about buracracy and political processes as they affect the black community.

Instructional Setting: Large Group, Independent

Special Materials Required: Library resources, text book

Prerequisites: Completion of Module 453.05

## APPENDIX-F

### Consortium of Southern Colleges for Teacher Education

The Consortium of Southern Colleges is a group of ten small colleges who have a mutual interest in the development of model prototypes of performance-based teacher education programs. The interest of this group developed as a result of an invitation to each school to engage in similar limited research into the usability of all or parts of the USOE Teacher Education Project, Phase I, Model Elementary Programs. The initial study was carried out with a high-level of success during the 1969-70 school year. Two conferences involving the model builders, the teacher education staffs of the Consortium members, USOE personnel, and other selected consultants and speakers highlighted the year's study. Extended travel, for on-site visits to the schools directly associated with the model builders during that year, gave added perspective and insight into the probable usefulness of ideas found in the model elementary programs.

Although originally research efforts were directed toward the development of model elementary programs only, many of the Consortium school's programs are focusing upon the development of a model for teacher education encompassing both elementary and secondary levels. These models will utilize systems-design techniques and will have the following features: (1) personalized and individualized instruction, (2) simulated professional laboratory experiences, (3) clinical experiences, (4) modular instructional components, and (5) research oriented structure.

Consortium of Southern Colleges
for Teacher Education

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