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ABSTRACT

This report offers a brief history of how the instructional staff at Moraine Valley Community College (Illinois) attempted to implement the institutional philosophy of providing innovation in learning. It is based on the assumption that students can learn from a variety of methodologies. Innovation is discussed under the categories of grouping, curriculum, and administration. Students are grouped to maximize the goals of the class. If the goal is to disseminate information from a variety of sources and approaches, a large group or lecture is used; if the goal is to better understand material through interaction, seminars are used. Curriculum (experimental course content) is discussed for developmental, transfer, and occupational courses. Examples are given of which courses use various methods for what purposes. Administrative organizational structure is based on participative management. The following concerns are discussed: rationale for instructional organization; method for identifying tasks basic to the successful operation of the instructional process; method of identifying who will be responsible for seeing that tasks are performed; guidelines for the instructional task coordinator; and procedures for conducting meetings of each instructional area. Supplemental reports from individual committee members are included. (CA)

Moraine Valley Community College

Palos Hills, Illinois

I N N O V A T I O N

Progress Report

1968-1971

INNOVATION TASK COMMITTEE - 1970 - 1971

NAME	DIVISION REPRESENTED
Thomas Zimanzl, Associate Dean Subdivision B	Instruction/Administration
Kathy Dockstader,	Biological Sciences
Bill Piland,	Business
Pat McKeague,	Communications
Jeff Grove,	Humanities
Dick Fritz,	Mathematics
Kay Schneegas,	Recreation
Marilyn Twining,	Recreation
Mike Eckhart,	Physical Science
Kathy Wulle,	Speech
Joanne Kitch,	Social Science
James Adduci,	ex-officio representative of AVI committee
Dick Brady,	director of audio-visual
Miles Meyerson,	editorial assistance

When innovation takes place, there is an intimate linkage or fusion of two or more elements that have not been previously joined in just this fashion, so that the result is a qualitatively distinct whole... If we may use a biological analogy, an innovation is like a genetic cross or hybrid; it is totally different from either of its parents, but it resembles both of them in some respects."

H. G. Bennett
from "Innovation: the Basis
of Cultural Change"

PREFACE

The educational specifications for Moraine Valley Community College, which were approved by the Board of Trustees, provide the original innovative flavor of this institution. These specifications document the general assumptions that students can learn from a variety of methodologies and that MVCC should provide an instructional climate conducive to a variety of learning patterns. "...Thus, in any one course, it is entirely conceivable that class sizes ranging from well over 100 down to one or two would be employed."

This progress report is a brief history of how the instructional staff has attempted to implement the original charge. Because of its nature, this report identifies only those instructional staff members who teach. To all of those who assisted us in innovation we are indebted.

I N T R O D U C T I O N

Before the original teachers were hired it was well understood that MVCC would be an innovative institution. The division directors and the dean of instruction selected personnel on the basis of how well they would adapt to the general direction of the instructional programs.

For the purposes of this report, innovation will be discussed in three basic categories: (1) Grouping, (2) Curriculum and (3) Administration.

G R O U P I N G

One method of innovating class structure is to group students in a way to maximize the goals of the class. If the goal is to disseminate, large lectures were planned with effective multi-media approaches. Small seminars were scheduled if the goal was to understand the material better through interaction.

LARGE GROUP INSTRUCTION - Lecture groups of 90-120 students are used by social science, humanities, biology, communications, psychology and speech. In general, the large groups are designed to disseminate information from a variety of sources. In social science, for example, lectures have come from team members with a specialty or from outside speakers experienced in the subject being discussed. In humanities, the lectures utilize the media available for explaining the fine arts. The use of slides, music and film assist in the understanding of the relationship between the arts in general.

The large lectures in composition gave general background information on various writing patterns and allowed students an opportunity to come in contact with more than one teacher. In speech and psychology, the large lectures are designed to minimize the repetition of lectures and provide more time for small group discussions. In biology, lectures and demonstrations are used to explain the relationship and application of what is learned in the laboratory. Introduction to para-medical training also uses the large lecture for guest speakers from hospitals.

INTERMEDIATE GROUP INSTRUCTION - The conventional size class of 25-30 is used to complement the large groups. Courses such as social science use this size for immediate interaction following lectures. Humanities classes have used this size group for discussion or studio implementation of art principles. Speech classes use the conventional size class for student speeches and critiques. Other classes that have remained conventional in size have done so because of the class enrollment or because there was no immediate reason to change the size group. At one time or another the conventional groupings have been used by all of our teaching staff. Foreign languages have emphasized conversation even though the classes have remained regular size.

SMALL GROUP INSTRUCTION - Small interaction groups have been used in developmental communications, reading, social science, humanities, literature, political science, philosophy, music, business, radiologic technologies, internships, sociology, psychology, DPR and anatomy. The small group meetings generally are used for analytical or exploratory discussions, panel discussions, demonstrations, reporting, simulation games, understanding and application of concepts. Some specific examples are the simulation games used by the business teachers, the art and music projects in humanities, the film critiques in x-ray technology and the understanding discussions in social or political science. These small groupings have been highly favored according to student comment because of the high frequency of individual attention and opportunity to learn from others. In-service training has been provided for faculty to learn more about group interaction methods. A survey on

seminar teaching revealed a positive reaction from students toward this type of instruction. Several courses are presently designed for the physical plant 1A, that include small group instruction.

INDIVIDUAL STUDY - Experiments in individual study, designed to allow students to progress at their own rate, have been tried in social science, humanities, open chemistry labs, drama, math, composition study skills, data processing, political science, typing and office machines and are being planned for psychology. Mr. Henry Allan is doing research through the University of Chicago on the history of independent study. These classes have used outside assigned readings, special research papers, essays, listening tapes with or without slides, computer assisted instruction, research projects and special projects for grading criteria. Mrs. Sinclair, in recreational drama, had students individually direct student plays in local grade schools. Some foreign languages also have developed individualized tapes for courses. T.V. taping and playback critiques are used in all speech classes for individualized instruction, self evaluation or creative drama. T.V. tapes also were used to individualize physical education and interviews in political and social science.

CURRICULUM INNOVATION

The normal course of study followed in a college education can be flexible to meet the needs of each student. It must also be flexible to meet the demands of a changing society. Oddly enough, the etymology of "curriculum" comes from Latin derivatives meaning running a chariot race on a circular race course. To avoid the circular direction of our course plans, many teaching staff have experimented with course content to make it more meaningful to the student. Experimental curricular paths have been attempted in developmental, transfer and occupational courses.

DEVELOPMENTAL CURRICULAR INNOVATION

In developmental composition, a group attempted to team teach large groups and work with small seminars to maximize the understanding of writing concepts. Realizing the less prepared student needs development beyond writing, the instructors expanded the course to include reading, listening, speaking and writing.

Other classes were developed to help prepare these students for further work at college. Social science, humanities and now natural science have been developed to serve the general studies student.

TRANSFER CURRICULAR DEVELOPMENT

Five major course areas have innovated their approach to offer MVCC students a broad and comprehensive general education background from which to decide their major direction at the university.

BIOLOGY

The inquiry approach to biology labs helps college transfer students become more actively involved in the learning process. Because the learner is expected to follow the assignment from a inquiry standpoint he actually experiences the induction instead of merely being told about it. Work is presently being done to include even more individualized learning in labs and lectures. Instructors have attended conferences and visited other schools using the systems approach to biological study.

SOCIAL SCIENCE

Social science introductory courses were integrated through team teaching so students would have an easier time seeing the general relationships between sociology, history and geography or economics. Several schools have written for information based on the integrated approach here. Outside speakers add a new flavor to course content. Instead of talking about the values of a drug addict, for example, one team actually brought some former addicts to class for a discussion on values. All attempts have been made to emphasize the active participation of the learner through seminar techniques and outside assignments.

HUMANITIES

To help students see the relationships between the fine arts, humanities was designed to include art, music and philosophy and literature. The combination of being exposed to three teachers, each with a specialty in one of the arts, and being exposed to slides of famous art works and the best of music, provides a general experience seldom found at the college level.

MATHEMATICS

The mathematics curriculum was completely revised into six-week units of instruction to provide greater selection of course content to meet the needs of a greater number of students. Testing math students through the use of the computer is being done, and one individualized computer learning package is being designed.

OTHER TRANSFER INNOVATIONS

Besides four major changes in curriculum, several transfer courses are being re-designed. Psychology is experimenting with two approaches: (1) the individualized approach and (2) the controlled lecture/seminar approach with personalized psychology projects.

Business, data processing and economics courses have experimented with T.V. tapes and simulation games. Composition has experimented with random achievement monitoring for transfer writing courses, and accounting and business math were revised by measurable objectives.

Assignments have been made in three major course areas to standardize course objectives. Innovations in art and music have been added to sophomore humanities, and open labs are used in chemistry.

INNOVATIVE OCCUPATIONAL CURRICULUM

Three major innovations have occurred in occupational training: (1) development of educational specifications, (2) individualized courses and (3) health science development.

EDUCATIONAL SPECIFICATIONS

The program directors have met with advisory committees to establish educational specifications which later could be converted into units of instruction. Mr. Swalec and the program directors have designed a complete program development and evaluation procedure for MVCC, and the State of Illinois has adopted their method of describing programs through objectives instead of course titles and descriptions. Their annual report also was praised by state officials because of its completeness of detail. Industrial Engineering Technology has been designed with educational specifications.

INDIVIDUALIZED COURSES

Mr. Dugan completely individualized the beginning drafting series. Students may progress at their own rate in an open drafting lab. Technical communications (COM 111-112) were also changed to meet individual needs based on occupational goals.

HEALTH SCIENCES

Individualized lab work and on-the-job experiences are common parts of the Health Sciences. Many clinical hours are spent on implementation of lecture and labs. The new Lownik Health Science Center is convenient to hospitals in the district and serves as an instructional area. Affiliated hospitals serve as clinical training stations. Some HSC courses are being taught by objectives, and others are being designed to put more emphasis on seminar techniques.

ADMINISTRATIVE INNOVATION

Dr. Vincent Guarna, Dean of Instruction, has worked with his staff in developing an organizational structure based on participative management. The following Rationale for Instructional Organization illustrates how Dr. Guarna has attempted to organize a division around its function at MVCC.

MORAINE VALLEY COMMUNITY COLLEGE
PALOS HILLS, ILLINOIS

Rationale for Instructional Organization

As a result of a plan approved by the board, Moraine Valley Community College has been viewed as a community mix. The basic premise of this mix has been interdisciplinary in concept in a cross-cultural, social and educational grouping of students. To achieve this mix, the total scope of the program is divided into representative samples of the whole which are housed together. This concept has evolved out of the basic principle of the modern-day, complete, one-stop shopping center. Down the middle of the educational shopping plaza runs the main street where all students and faculty intermingle.

Off the main street are instructional subdivisions which, in most cases, include a cross section of facilities and course offerings for major subject areas taught at the institution. Between each instructional subdivision and the main street are crossroads, which foster and emphasize the concept of the mix. Each crossroad provides spaces for study, relaxation, snacks, conversation, socializing and exchange of ideas.

Students and faculty are placed in a situation which encourages a more informal and personal relationship and reinforces the processes which are the basis for the mix. Faculty offices house a cross section of the disciplines represented in the instructional subdivision rather than department. Counseling offices for the students of that subdivision are located in the crossroads to provide easy access in a less formal

structure than is commonly found and situated in the direct path of student flow to encourage the processes of academic, personal and vocational guidance.

Some specialization in instructional subdivisions are necessary simply because of their facilities such as physical education, music, art and an auditorium.

The instructional division is organized under the premise that all programs are institutional in nature. To implement this concept, the following organization plan was devised and is presently in use at Moraine Valley.

The Associate Dean in charge of programs develops all new programs, evaluates existing programs and subsequently recommends adoption, deletion or modification. Educational objectives are formulated. After the normal procedure of gaining approval through the Academic Council, the local board and the Illinois Junior College Board, the program plan is turned over to the Associate Dean in charge of courses and faculty. Courses are designed to meet the program objectives, and faculty are hired to teach the courses. A balance and check system is in effect between program and course areas.

Program Directors assist in the development and evaluation of programs within major areas: public service, health sciences, industrial technology and business-related. Program Coordinators assist in coordinating activities between college and the agency which has agreed to serve as a training station or to provide on-the-job training, cooperative training, etc.

The primary duties of the Associate Deans in charge of courses involve the implementation and improvement of instruction. Teaching staff members within like disciplines of the various subdivisions meet periodically to discuss and agree upon objectives, syllabi, modes of instruction and text selections. A member of the Dean's Council is assigned to supervise each task area listed below.

Task Areas Supervised by Members of Dean's Council

Subdivision A	Programs	Subdivision B
Developing units of instruction for all courses including business & industrial technology courses	Educational Specifications	Developing units of instruction for all courses including health science and public service programs
Textbooks	Developing New Programs	Innovations
Library		A. V. I.
Vertical Team progress & design		Vertical Team composition research
		Lownik development
In-Service Education	In-Service Education	In-Service Education
Part-Time Faculty	Part-Time Faculty	Part-Time Faculty
Supplies	Supplies	Supplies
Equipment	Equipment	Equipment
Faculty Evaluations	Faculty Evaluations	Faculty Evaluations

Instructional Leaders of major discipline areas are elected by faculty, subject to approval of the Dean of Instruction. Instructional Leaders are elected for one year. The main duty of the Instructional Leader is indicated in the task areas on page three. We may have many Instructional Leaders in a major discipline area, each having assigned to him one of the tasks indicated. For example, the Instructional Leader for textbooks in communications will take the initiative in inviting recommendations from faculty regarding adoption of textbooks for communications courses.

Dr. Vincent A. Guarna,
Dean of Instruction

August 1970

Method for Identifying Tasks

Certain functional tasks are basic to the successful operation of the instructional process. The Deans' Council has agreed upon a number of these which seem to be appropriate for each instructional area. These identified tasks are not to be considered all inclusive, but rather as an initial, suggested base of implementation. Staff members may identify other tasks.

The identified tasks are:

1. Unit of Instruction Development and Evaluation
2. AVI Requests
3. Vertical Team Information
4. Textbook Selection and Ordering
5. Library Selection and Ordering
6. Methods of Innovation
7. Study Skills Development
8. In-Service Education
9. Assistance to Part-Time Faculty

Other tasks may be:

10. Equipment and Supplies Procurement
11. Syllabus Development

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A Method of Identifying Who Will Be Responsible for Seeing That Tasks Are Performed:

The Associate Dean responsible for a subdivision is ultimately responsible for tasks performed by teaching staff in all subdivisions. The following methods of communicating how these tasks are being performed are suggested.

a. The minutes of each task meeting will be sent to each Associate Dean. These minutes should reflect contributions from assigned staff.

b. Progress reports would be submitted by staff assigned to tasks. Those reports could be circulated among other staff in the subdivision, with copies to the Associate Dean.

c. The Associate Dean assigned to a task will report performances of staff on that committee to the appropriate supervisor.

Emphasize Accountability on the Part of All Staff--Insure Involvement:

Emphasis should be placed on committees' accountability for the total task assigned. The following methods will help insure involvement.

a. The Associate Dean responsible for each task will initiate the first meeting and explain the charge given to that committee.

b. An Instructional Task Coordinator will then be elected from the teaching staff.

c. The Instructional Task Coordinator, the committee and the Associate Dean will help establish specific objectives to

to be met and tasks to be performed.

d. Volunteers for specific tasks will be acknowledged. The Instructional Task Coordinator will assign any tasks that have not been taken.

e. If possible, everyone on the committee should have an assigned task related to his committee. An English teacher, for example, may be on a task committee for A.V.I. and have for his specific task the A.V.I. plans for the permanent building. There are enough specific tasks to be performed to involve everyone.

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Guidelines for Instructional Task Coordinator

I. Procedure for Electing Instructional Task Coordinator

A. A majority vote of the staff members present at the organizational meeting will indicate election to the position. Instructional Task Coordinators will conduct elections or appoint task leaders to task assignments.

B. Instructional areas and temporary chairmen are as follows: (Temporary chairmen will conduct only the first meeting.)

1. Business (DPR and Medical Record Program included)--Ed Berg
2. Communications and Literature--Al Monroe
3. Biological Sciences (Coordinators of MLT, ORT, LPN, RN, and instructor of medical-surgical part of nursing included)--Russ DuFrain
4. Physical Sciences (NAT, DFT, instructors in MLT, CHM, Inhalation Therapy, Radiology and Coordinator of Radiology included)--Fen Taylor
5. Social Sciences (PSY and instructors in Psychiatry of Nursing and Maternity-Child Nursing Programs included)--Henry Allan

6. Foreign Language and Speech--Marge Sinclair

7. Humanities--Ralph Arnold

8. Physical Education and Recreation--Ray Pietryla

9. Mathematics--Paul Lawrisuk

C. An Instructional Task Coordinator will serve for one year (August-May) and be eligible for reelection.

II Records of Proceedings and Distribution

A. Each instructional area should select one member to record the results of each meeting.

B. Agenda items may include discussion and task reports concerning the following:

1. Textbook selection and ordering

2. Library book selection

3. Developing units of instruction (syllabi development)

4. Methods of innovation

5. A.V.I. requests

6. Vertical team information

7. Equipment and supplies

8. Other

C. Copies of the proceedings should be distributed to the Dean of Instruction, Associate Deans, Staff Assistants, Program Directors, Coordinators and appropriate staff members.

MORAINE VALLEY COMMUNITY COLLEGE
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Instructional Task Coordinator

The primary responsibility of the Instructional Task Coordinator is to maintain an open line of communications between all the varied tasks needed to enhance the quality of instruction in related discipline areas. The Coordinator will perform the following duties in meeting this responsibility:

1.1 Schedule meetings for those in his discipline area and circulate the minutes of each meeting to the appropriate personnel.

2.1 Seek volunteers or appoint faculty to be responsible for designated tasks.

3.1 Arrange for reports from faculty assigned to tasks.

4.1 When appropriate, attend the Deans' Council to discuss proposals in his discipline area.

5.1 Perform other tasks of coordination as needs arise.

The tasks to be represented in his discipline area are:

1. Textbooks
2. Library
3. In-Service Education
4. Study Skill Center Development
5. Supplies
6. Equipment
7. Innovation
8. Audio-Visual
9. Other

The Instructional Task Coordinator will refer teaching staff to the appropriate Associate Dean as needed. He will not be accountable for instructional problems that would be handled more appropriately by the person to whom the teaching staff member reports.

Description of Task Leader

The Instructional Task Coordinator will identify Task Leaders within his discipline. Each Task Leader will perform the following functions:

1.1 Attend task meetings

2.1 Report task information to the Associate Dean in charge of supervising that task and to his discipline area when asked to do so by the Instructional Task Coordinator.

3.1 Be accountable for the task given him in his discipline.

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Procedures for Conducting Meetings

Although meetings of each instructional area should reflect a flexible and open discussion relating to the instructional process, it is appropriate that certain identified topics of discussion be covered (i.e., tasks).

The Instructional Task Coordinator shall have the responsibility of preparing and distributing the agenda in advance of each meeting, noting the room location and all items which have been recommended for discussion. He should check the room prior to the meeting to assure that it is suitable for the group's needs.

The group should decide upon the assignment of one member to record the results of each meeting. This can be handled on a rotational basis or by securing a permanent "volunteer."

It is the Instructional Task Coordinator's responsibility to see that the meetings start promptly, proceed effectively and close when the designated closing time has been reached. If the agenda has been carefully planned, the meeting becomes a methodical, businesslike process of developing recommendations for the college. Poorly organized agendas can be distracting and annoying to the committee members.

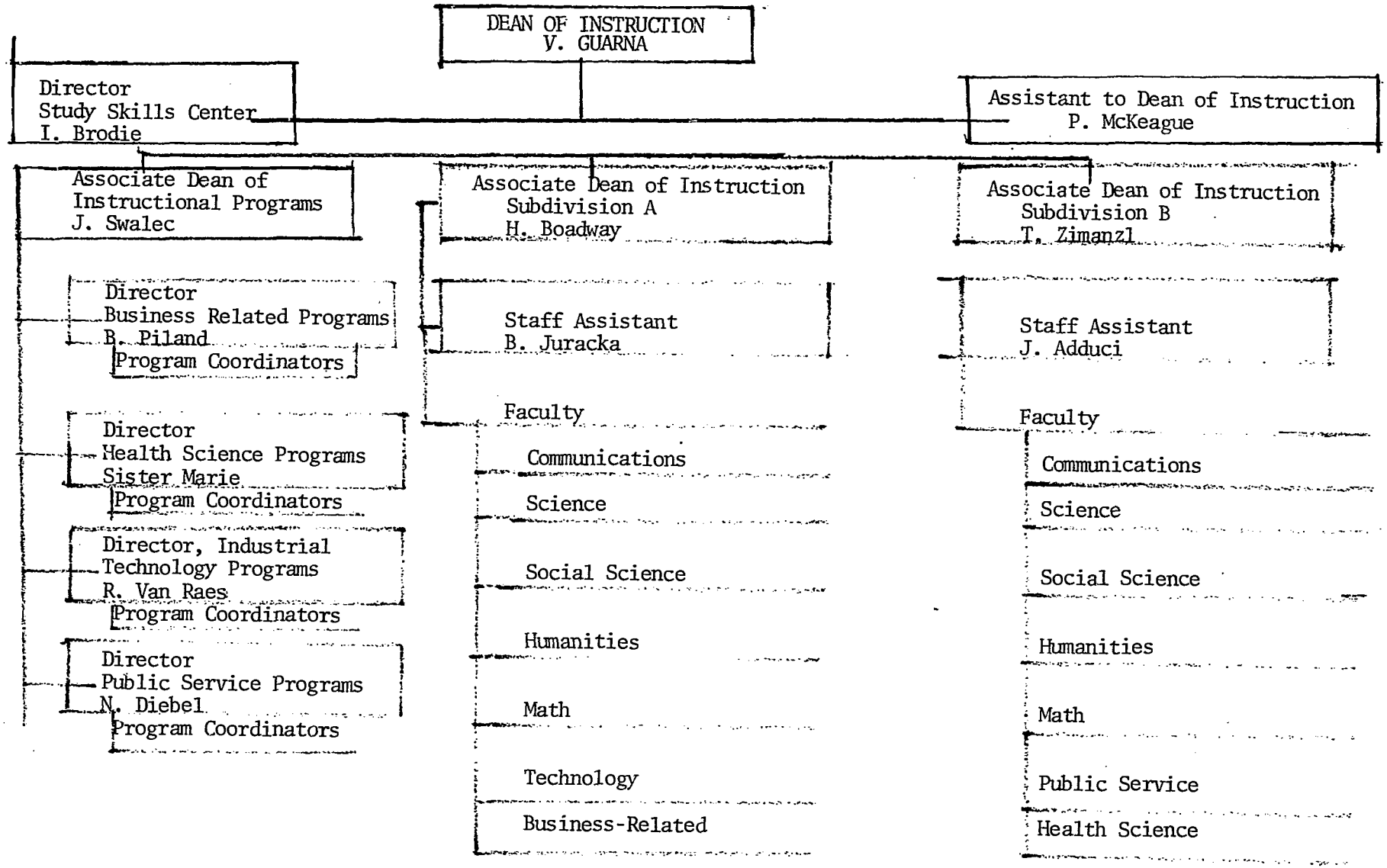
Because the meeting is basically a cooperative medium, it should reflect a minimum of control and participation by the Instructional Task Coordinator, even though he is technically in charge. Group members are there to participate; it is up to the Instructional Task Coordinator to give them maximum opportunity consistent with the purpose of the meeting.

A desirable attitude of the Instructional Task Coordinator would be described as open-minded, objective, tolerant and understanding. It stems from a philosophy of wanting to develop a democratic group, of inviting participation of the group in arriving at decisions.

Copies of minutes should be supplied by the secretary to the Instructional Task Coordinator for review and final approval and forwarded to the Associate Deans and Dean of Instruction.

TASK ASSIGNMENTS

AREA	TASK COORD.	TEXT BOOKS	LIBRARY	IN-SERVICE	STUDY SKILLS	SUPPLIES	EQUIP.	IN-NOVATION	AUDIO-VISUAL	VERTICAL TEAM	UNIT OF INSTR. (syllabi)	OTHER	RECORD
BIO. SCI.	DuFrain	Graczyk	McCord	Allan	Smith	Staudinger / Srugys	Staudinger / Srugys	Dockstader	Kuehner		Donnersberger	DuFrain Team Teach	Staudinger
BUS DPR	Berg	Ludden	Pauritsch	Gruca		Yelvington	Willson	Piland	Povsner	Sweeney	Wilczak & Barrett		Berg
COM LIT	Monroe	Milner & Haynes	Reagan	McKeague	Bryzek	Jane Haynes	Jane Haynes	McKeague	Neidlinger	Sullivan	Sullivan & Monroe	Lehrman & Moran	Jane Haynes
HEM	Jenks & Glomb	Capstaff & Jenks	Glomb & Capstaff	Bishop & Glomb	Tinkle & Bishop	Tinkle	Grove & Tinkle	Gordon & Grove	Arnold & Gordon	Norton Tinkle Arnold	Norton Tinkle Arnold		Tinkle
MTH	Lawrisuk	Holec	Popp	Lawrisuk	Fritz	Lawrisuk	Lawrisuk	Fritz	Fett	Apter	Brann & Holec	Apter	Apter
P.E. REC.	Pietryla	Pietryla & Schneegas	Hansen	Pietryla	Twining	Schneegas & Neuman	Schneegas & Neuman	Schneegas & Twining	Hansen & Neuman	Scheidt	Pietryla	Scheidt	
PHYS. SCI.	Taylor	Arthur & Corrigan	Popp	Lundal	Rodriguez	Drummond & Allan	Drummond & Allan	Eckhart	Ruyle		Dugan	Scheidt	Kirvaitis
SPE. LANG.	Sinclair	Sinclair	dela Noval	Wulle	Huns	Tiernan & delaNoval	Tiernan	Wulle	Arocha				delaNoval
SOC SCI	Zamora	Scott	Sauve'	Allan	Lee	Covalt	Keogh	Kitch	Gallagher		Diebel		


DEAN OF INSTRUCTION
V. GUARNA
Director
Study Skills Center
I. Brodie
Assistant to Dean of Instruction
P. McKeague
Associate Dean of
Instructional Programs
J. Swalec
Associate Dean of Instruction
Subdivision A
H. Boadway
Associate Dean of Instruction
Subdivision B
T. Zimanzl
Director
Business Related Programs
B. Piland
Program Coordinators
Director
Health Science Programs
Sister Marie
Program Coordinators
Director, Industrial
Technology Programs
R. Van Raes
Program Coordinators
Director
Public Service Programs
N. Diebel
Program Coordinators
Staff Assistant
B. Juracka
Faculty
Communications
Science
Social Science
Humanities
Math
Technology
Business-Related
Staff Assistant
J. Adduci
Faculty
Communications
Science
Social Science
Humanities
Math
Public Service
Health Science

The following supplemental reports come from individual committee members.

Joanne Kitch

AREAS OF INNOVATION IN THE SOCIAL SCIENCE AREA:

1. Interdisciplinary team teaching.

   All instructors in the social science area are involved in team teaching this year.

2. Independent study (self-paced learning).

   Bill Klecka designed his political science course first semester as self-paced learning units. Students picked up unit objectives in the programmed learning center. Learning activities were suggested as ways of meeting these objectives. Each student was also required to attend nine discussion seminars.

   Sharon Sauve used an independent study unit in History 201. Students chose certain learning activities as a way of meeting objectives for a unit on the period 1820-1860.

   Joanne Kitch used semi-independent study units throughout History 202 and 102. Students were given reading objectives for each unit and suggested texts. When students had completed their reading objectives, they proceeded to meet in small groups to discuss topics based on the reading objectives, which would help them meet the unit objectives.

   Marge Zamora used independent study projects in Political Science 101 and 102. Students worked together in small groups on these projects, then reported to the entire class.

   Jim Adduci's team used an independent study project on poverty for good students in SSC 101.

3. Implementation of learning.

   The Adduci team, Marge Zamora in Political Science and Pat Covalt and Larry Keogh in Sociology used guest speakers to implement learning.

4. General Education

   The Vertical Team, including social science area members Joanne Kitch, Sharon Sauve and Larry Keogh, has been an experiment in integrated education. First semester it consisted of two teams with integrated objectives and a composition instructor. Second semester it will consist of eight units--all topics in the 20th century--which will integrate material from all the disciplines represented in the Vertical Team.

5. Evaluation.

   The Vertical Team has designed some evaluation materials which may be useful to others in team teaching.

INNOVATIVE IDEAS OR METHODS IMPLEMENTED AT THE CURRENT TIME IN BUSINESS

1. Unit objectives in ECON 101.

2. Video-tape recording of Sales Presentations in Salesmanship.

3. Computer Simulation Games in Marketing, Retailing, Into. to Business and Economics.

4. Video and Audio Tapes of Commercials in Advertising.

5. Audio Tapes and accompanying study guides for use in Marketing.

Bill Piland

PRESENT INNOVATIONS IN SCIENCE

The following responses indicate innovative techniques used in Science.

PRESENT INNOVATIVE IDEAS IN SCIENCE

1. Allowing students to carry on some independent investigation.
2. Open lab with continuous lab prep for individualized learning.
3. A program presently being developed for sound on slide presentation on how to use the microscope.
4. Cassette tapes to be used instead of instructor guide for an evolution trip to the Field Museum.

INNOVATIVE TASK COMMITTEE

Environmental Science:

1. Utilization of any community resource to provide an "on site" learning experience.
2. Individual student research project investigating a specific aspect of the physical environment, e.g., soil, water, air, vegetation, wildlife, minerals.
3. Giving prospective education majors an opportunity to teach a topic in environmental studies in a "real live" teaching situation.
4. Trying to break down the lab groups into smaller units for holding "small classes," with chalk-board and lab equipment, <u>besides</u> regular lecture meetings and lab work assignments in chemistry.

Small group discussions with students during their internship in affiliate institutions.

Completed laboratory now allows, for the first time, implementation of theory prior to internship.

1.) Students work at their own rate in lab configuration.

2.) 8 MM film loops are integrated into dissemination and implementation. These 4-minute film loops work tremendously well!

3.) Lecture attendance is optional .

4.) Assignments are optional. Objectives which the assignments point toward are not optional.

Use of work assignment booklet for self directed assignments using systems approach.

Comments:

Lectures given on dates as listed for semester.

Proficiency tests allowed for course units.

Some students can complete the required work in less then 18 weeks.

HUMANITIES

The following innovative techniques are being tried in humanities:

1. Programmed learning and testing procedures.
2. A systems approach to each unit of instruction leading to a final examination.
3. Use of multimedia demonstrations in lectures.
4. Large and small groupings for discussion of materials.
5. Guest lectures by outside talent.
6. Vertical team participation.
7. Horizontal team development.

REPORT ON THE SYSTEMS APPROACH AS USED IN POLITICAL SCIENCE 101, FALL SEMESTER, 1970

COURSE ORGANIZATION

PSC 101 included 28 units covering local, state and national government. Each unit consisted of a guide sheet containing the rationale for the unit, a set of behavorial objectives averaging six or seven in number, and at least one but preferably two different modes of study (printed handout, audio or video tape, film, programmed instruction). The student picked up his unit guide in the Individualized Learning Center whenever he was ready to begin the unit. The study materials also were available in the Center for use at his convenience. Normally he achieved the behavioral objectives without my help and was able to pass a short test on the unit at the 90% level of accuracy. If he failed to achieve at that level, he would restudy and take alternate forms of the examination. After passing a given number of these units, usually three or four, he would attend a seminar based on that subject and for which he had also read a problem, usually from American Government: Problems and Readings in Political Analysis by Elliot, et al. Each seminar was offered on three different dates at the time the class would ordinarily have met. Each seminar was, in fact, a deadline the student had to meet.

TEACHER ROLE

My role in the course was to write the rationales and behavioral objectives, to select the learning activities, to prepare some learning materials, to introduce the course to the class on opening night, to deliver one lecture the second class session for those who needed a more gentle transition to the systems approach, to station myself in the Individualized Learning Center for 90 minutes before each seminar for those who needed to see me and for personal contact on a casual basis and to participate in the seminars (which I viewed as my major teaching role.)

Grading was simplified under this system. To earn a "C", a student had to pass all 28 unit tests at the 90% level of accuracy, attend all nine seminars and write a critique of a Hollywood film (Advice and Consent" or "The Last Hurrah"). To earn a "B", the student also had to conduct a community research project. To earn an "A", the student had to meet the "C" and "B" criteria and also write a term paper. The final grade distribution was: four A's, fourteen B's, seven C's, four X's for those who never appeared at any time in the course, four X's for those who appeared at the beginning of the course but dropped, and two X's for those still in the course but finishing late--one through the Study Skills Center. Judging by their present rate of progress, these last two X's will be corrected during the early part of the 1971 spring semester.

EVALUATION DATA

Student responses to an evaluation questionnaire were tabulated. Data is available.

SUBJECTIVE COMMENT

Preparation and/or selection of learning materials for use in the systems approach requires much work. In the absence of the instructor, students will flounder if assignments or objectives are unclear. A communications center is a must. I chose the bulletin board in the Individualized Learning Center.

The results of the foregoing evaluation proved that the systems approach does not have to result in dehumanized education. In my opinion, use of the system without seminars for personal contact would be disastrous. I felt that I knew these students as well or better than under the traditional system.

The students liked having more than one learning mode to achieve objectives. Unfortunately, time limitations frequently prevented me from devising a second mode. It is extremely difficult to create new materials as one proceeds through the course because the fastest moving students often can master a unit faster than the instructor can construct it.

To witness the students' enjoyment of their liberation from a classroom schedule as they learned at their own pace was pleasing. But my greatest pleasure was derived from participating in some of the best seminars I have experienced. The system resulted in well-prepared seminar discussants. Everyone had a grasp of the basics, and, therefore, discussions could and often did reach a higher level

than I had previously experienced. Personally, I found it much more rewarding to be periodically drawn into seminar arguments than to repeat lectures on basic facts, as I had under the traditional system.

After experimenting with a total systems approach, I believe that most of our students have much to gain from this learning approach. It is important to note that a significant percentage of community college students have a psychological orientation unsuited to success under the systems approach. Six of the seven students who disliked the system or were ambivalent were over 20 years old. Logically, the longer one works under the traditional system, the more reluctant one is to change. The logical conclusion seems to be that providing instruction systems both more and less teacher-directed would promote success for more students.

Bill Klecka
1970

RESEARCH ON INNOVATION

Any innovative institution should strive to capitalize on instructional techniques which have worked before and to avoid those which have failed. The following investigation was conducted by Mr. Henry Allan, in cooperation with the University of Chicago, to give MVCC some background in independent study.

I. PRESENT INNOVATIVE IDEAS IN SCIENCE

1. Allowing students to carry on some independent investigation.
2. Open lab with continuous lab for individualized learning.
3. A program presently being developed for sound on slide presentation on how to use the microscope.
4. Cassette tapes to be used instead of instructor guide for an evolution field trip to the Field Museum.

II. INNOVATIVE IDEAS FOR THE NEW STRUCTURE (IN VIEW OF OPEN CONCEPT)

1. Provide gas masks on days that chemistry students are also working.
2. Ventilation should be of top concern for A&P since cat odor is not pleasing to many.
3. Go to completely individualized instruction by using audio-tutorial and eliminating mass dissemination in hopes of cutting down on noise problems.

III. KINDS OF CHAIRS, TABLES, CARRELS RECOMMENDED FOR NEW STRUCTURE IN TERMS OF BIO-SCIENCE NEEDS.

1. Individual carrels with tape recorders and large demonstration areas.
2. Chairs or stools of better quality than we now have.
3. Movable tables with electricity and water against periphery of room. (One said free space was needed for putting things, people and objects on floor).

IV. HOW DO YOU FEEL TRYING AN INNOVATIVE IDEA WILL AFFECT YOUR EVALUATIONS (ADMINISTRATIVE AND STUDENT-TEACHER) IF THE IDEA SHOULD FAIL?

1. "Best tried in small stages - otherwise possible catastrophe."
2. "Don't think if principles are explained to students that they object - think administration required full knowledge prior to innovation."
3. "If the idea failed, it would affect the evaluation negatively."

V.. WHAT DO YOU FEEL THE JOB DESCRIPTION WILL BE FOR AN INSTRUCTOR IN 1975?

1. Less formal presentations.
2. Still much student contact.
3. "Organization King - administration of masses of people, ideas, media, - learning facilities."

VI. THE GENERAL DIRECTION IF TOWARD MACHINES. IS THIS WHAT TEACHERS WANT?

1. "What about students? I believe students need and appreciate a good percentage of teacher guidance - as long as this exists - fine."
2. If it is applicable to their material.
3. OK to supplement or work with certain repetitive material, Student - teacher interaction still vital.

VIII. WHAT IS YOUR INTERPRETATION OF WHAT RIGHTS YOU HAVE IN THE CLASSROOM AS FAR AS DEVELOPING OBJECTIVES, METHOD AND CONTENT?

1. "The instructor should be restricted in developing objectives only as far as they fit into the MVCC philosophy and long-range plans. Presently, long-range plans are very vague. Content would be governed only by the objectives and method should be left entirely to the instructor."
2. "I feel free to do as I think best except in some areas which are presently limited."
3. Lab work tied very strongly to group decision due to lack of space to keep many set-up and lack of provisions for maintaining live materials. More freedom in lecture."

APPROACHES TO INNOVATION IN COMMUNICATIONS

Modified individualized instruction: group study combined with individual.

Student evaluation of other students.

Discussion/lecutre with whole class.

Students discussing in small groups while the instructor acts as resource person.

Small groups--with the instructor in them--the class not all meeting that day--just the group.

"Exams"--which begin as writing in class, but and when the student chooses (not forcing students to conform to a time measure).

Students work in pairs; students grade their own papers.

Christensen rhetoric program is producing results with 099.

Films in addition to reading assignments. Class does not read things seen--too much emphasis on the w ritten word.

Using novels in 099 and in 101--not to study the genre, but for discussions, ideas, essays.

Recordings--aural experience in poetry. The use of some poetry in 099 and in 101 helps develop student attention to details, words, motifs.

Cancel class meetings for one week to hold individual conferences. (Members of eight communications classes responded this way to the idea: Positive--165 Mixed--16 Negative--4)

Frequent use of media in large group presentations: recordings, slides, transparancies, tapes.

Small group grading sessions.

Video tapes made for other disciplines are used to s timulate discussion and to provide material for written assignments. (This is particularly used for the teaching of argument.)

Individualized learning packets in Communications III. Areas covered included writing instruction, descriptions, summaries and business letters. Teachers often make "guest appearances" in other classes in the area of their competence.

Frequent sharing of materials among teachers.

COMMUNICATIONS

1. What will the job description be for an instructor in 1975?

   The good instructor should always be essentially the same type of person no matter what the year: flexible, inquiring, articulate, compassionate, intelligent, wise, and possessing supernatural qualities.

   The instructor will do more individual teaching - text book "Learning" will be put on programs. Instructor will use expertise to guide and inspire students.

   "Learning guide" -- I have never seen the function of the teacher as that of "teller", but rather as that of "shower"--one who shows student the path that leads to individual discovery.

   Very similar to now: helping students meet course objectives. Perhaps more ways of meeting those objectives will be available to the student, but the teacher still guides and evaluates.

   Despite the rhetoric I hear, I really expect teachers will not be different in 1975.

   1.) Intelligence--good knowledge of his field and a good grasp of educational philosophy.

   2.) Openness to continued learning--definitely not in the field he's already demonstrated competence in.

   3.) Sensitivity to individual needs of students in the instructor's area of competence.

2. The general direction is towards machines. Is this what the teachers want?

It would free the teacher from the drudge area.

People cannot respond to machines. Only through personal interaction does literature have any life, any meaning. The machine represents modern dehumanization of the individual as far as I am concerned.

Machines have their place. The won't replace people but most teachers, in my opinion, see them as adding something to their courses.

Only to the extent that I use them as teaching aides. I still feel a teacher is a person.

Most that I know are not afraid of machines, but my experience shows that in teaching writing and literature, machines can only aid.

3. What is your interpretation of what rights you have in the classroom as far as developing objectives, method and content?

In the classroom, my rights are unlimited. Objectives and content should be somewhat standardized.

I have freedom provided I work within the framework of the college. My rights ends at the point that student achievement is in any way diminished. To paraphrase Pope--"Whatever works is right."

I feel a subtle pressure to conform--but nothing particularly outward.

In the future I feel it is very important that a teacher be given complete freedom as to how he meets course objectives. (The objectives, however, should be standard for a course.)

I have the right to do it, but there's also a threatening attitude that I'd better do it.

I feel there should be mutual agreement among instructors in a particular area on objectives. I think there is a fair amount of that here. Within that I feel pretty free to use methods, content congenial to me and my students.

INNOVATION - MVCC - HUMANITIES INSTRUCTORS

Genevieve Capstaff has given a list of items to Anabel Sproat that will be needed in the new building for humanities instructors.

Program learning is being utilized by many humanities instructors for testing purposes.

John Norton has a proposal for cordless headsets to be used in the new building.

Jeff Grove and John Norton have initiated a new procedure for testing this semester. They have used testing as a means of evaluation instead of a motivational device.

BIBLIOGRAPHY

SOURCE MATERIAL FOR INNOVATION

I. Professional Collection Index

A. Articles

1. "Humanities in a Community College " 680073

2. "Arts and Humanitied Education Research Projects" 692403

II. ERIC - Educational Resources Information Center

1967 - 1969

A. Microfilms

1. "The Quest for Relevance: Effective College Teaching VI. The Humanities" ED 027-855

2. "What is the Impact of the Social Revolution on Humanities Studies" ED 026-958

3. "An Exploration into Team Teaching in English and the Humanities" ED 023.684

4. "Minnesota Junior College Faculty Interests and Concerns; Report of a Conference of Instructors in the Humanities" (Minneapolis January 14-16, 1968) ED 023-370

III. Pacesetters in Innovation: Planning and Operational Grants 1967-68 Microfilm

IV. Encyclopedia of Educational Research 3rd and 4th Edition

V. Dissertation Abstracts International 1969-1970

VI. Review of Educational Research

VIII. Handbook of Research on Teaching

Jeff Grove
Task Force - Innovation

MATH INNOVATION SUMMARY

(1) Math 100 (Liberal Arts level) has been broken down into individual 6 week units each carrying 1 semester hour credit. An attempt was made to design these units more in line with what other areas of study needed, rather than forcing everyone to take the original intermediate algebra content. The major emphasis of this change was to humanize the subject as well as providing vertical mobility for those intending to continue in math or science.

(2) Bob Holec and Joy Fett have been working on completely individualizing Math 117 (Elementary Probability). Their first step has been to use Course Writer on our IBM 360/30 to develop CRAM - Continual Review and Achievement Monitoring. CRAM is designed to allow the student to set his own pace for evaluation and to continually check his progress, through the material. The next step planned for MTH 117 will be to completely individualize the dissemination material.

(3) Our next objective is to do something about MTH 099. We have 8 people teaching math on the faculty and apparently we have 8 different opinions as to what should be done.

(4) This semester we tried a type of "team teaching" in Elementary Functions (Mth 140), a 5 day 5 semester hour course. We had two classes scheduled at the same time (10 A.M.) and combined them twice a week (Tues.-Thurs.) for a mass lecture. The other three days were used as problem-discussion and testing periods.

The method never really saved any time. It did however give us a chance to redirect many of our previously duplicating efforts. For example, if the two classes were separate we would spend time making two tests on the same material, but this way we were able to spend the same amount of time and create both a pretest and a post-test on each part of the material.

The only other major advantage was that we allowed the students to split themselves into a "fast" group (those going on to Calculus) and a "slow" group (those that were terminal, had deficient math backgrounds, or were unsure of their own abilities). Both groups progressed at the same rate, but the fast group was encouraged to investigate each subject in more depth than the slow group.

Holec and I both feel that this approach should be continued in MTH 140 and possibly in other courses. However, no one should be forced to join one of these groups unless he desires to, since disagreement on even administrative details could blow the whole thing.

R. A. Fritz

PHYSICAL EDUCATION SUMMARY

1. Physical education women majors have been working on an experiment under the direction of Marilyn Twining. This experiment has been underway since the fall of 1969.

   a. Folder of test scores which will be sent tc the school they transfer to, this folder includes the Scott Motor Ability Test, ACT Score, Likert Career Attitude test, Rogers physical fitness index battery, Academic Indèx battery, Academic Index rating by peers.

      This series of tests has been very helpful in guiding students as well as giving the physical education chairman at the senior colleges some idea as to where this student should be placed.

2. The second part of this experiment was concerned with observation, aide and cadet teaching. During the two year span of time the girls were taken as a group to visit schools, conventions, workshops. As individuals the girls observed eight hours on their own time at the elementary, junior high, high school and college levels. Eight hours was then spent aiding at the level they selected, and then eight hours teaching at that same level.

   From this experiment we found a need to offer a course where all of this would be included for both men and women.

3. Physical education major classes have worked with turn teaching making use of four instructors at various times for the same groups groups of men and women students.

4. Physical education major students have taught service classes under the guidance of a physical education instructor.

5. All physical education courses use the objective method of teaching.

6. Video tape has been successful for individual instruction in all areas.

7. Loop films for individual instruction.
8. Taking the students to various demonstrations, workshops, etc.
9. Having the students conduct a swim meet, track meet, with other schools.
10. Students prepared a diet luncheon as a climax to Slimnastics 130.
11. Elementary School Games--Taught physical education in a Catholic school for six weeks.
12. Gymnastic workshop between schools.
13. Sound on slide.
14. Made many slides and films of activities.
15. Dance courses worked with humanities.

M. Twining

RECREATION SUMMARY

1. Program Planning - Conduct a survey in a nearby community. From this survey helped the community develop a year around program.
2. Guest speakers, visits to various recreation areas, workshops, conventions, etc.
3. Program planning - eight hours volunteer work at one level of recreation.
4. Individual package approach used in recreation leadership, program planning.
5. Contract grading in all recreation theory courses.
6. Recreation leadership - developed programs at Rosewood Trace Apartments, and Tinley Park Mental and Retarded building. Students spent one day of each week for a semester carrying out the programs they had developed.
7. Students evaluate other students.
8. Much individual use made of the learning lab, cassettes, and transparancies.
9. Use of other teachers on campus to help with art, music, dramatics, etc.

M. Twining

MODES OF INSTRUCTION

Moraine Valley Community College is developing instructional programs geared to the individual students' needs, enabling them to proceed at their own rate of learning.

Before the college opened, we agreed that some of the traditional courses and approaches had failed, and it was time to experiment with different content and methods. A new community college seemed to be the ideal place to start. Therefore, we tried to be innovative in our approach toward instruction.

To integrate the disciplines and to decompartmentalize learning, the social science, humanities and communications courses have recently been offered on a vertical team basis. Three social science instructors, three humanities instructors and one communication instructor teach as a team and work to develop objectives, learning activities and evaluative devices, helping the student see the interrelationships existing among the disciplines. To demonstrate the relationship of those disciplines to the student's experience the first semester's work considered three broad themes: man and self, man and others and man and environment. The second semester will deal with developments in the humanities, social science and communication in the twentieth century. This approach is offered on a more limited scale in the horizontal team-taught social science course and is interdisciplinary in nature utilizing economics, history, political science and sociology in examining the fundamental problems of contemporary society. This same approach is implemented in all team-taught horizontal interdisciplinary humanities courses integrating the comparative concepts influential in the cultural achievements of western man.

To develop a mathematics curriculum more sensitive to the interests, needs and abilities of the community college student and to increase the rate of student success, the math faculty decided to replace the traditional math classes with a series of small units of instruction, each defined in terms of behavioral objectives. These units consist mainly of one credit hour courses of six weeks in duration. The student may select the credit hours of mathematics which are best suited to his professional needs and academic ability. Many combinations are possible with relatively few on-hour courses. Learning is facilitated by the flexibility in tailoring a mathematics experience to the student.

To assist underachieving and overachieving students, a Study Skill Center has been established. The center is staffed by a director and by faculty, and is open to the student from 8:00 a.m. to 9:00 p.m. Tutorial services are provided in the major discipline areas. A student may be referred to the Center by faculty or by counselors, or he may seek assistance himself. It is possible for a student to receive course credit in COM 100 or COM 105 for certain skills perfected in the Center. More course credit may possibly be added at a later date. However, most work completed in the Center will be for personal development and academic skills.

To facilitate reacher-student interaction, a variety of grouping techniques are employed. In all team-taught humanities, social science, biology, composition and speech classes, students are brought together for large group dissemination and then divided into smaller groups which range in size from 15 to 30 students for purposes of understanding and implementation. This disseminating of information to large groups later facilitates interaction in the understanding seminars. The design of the new facility will continue to encourage experimental grouping techniques.

To encourage the open concept, Moraine's interior design has been extended to include the concept of "school without walls". The community and its resources are utilized gy teachers and students to permit an openness of approach and more individual freedom to choose relevant learning experiences. Some social science and political science classes have become involved in issues which directly affect the community. Students in technical writing classes spend six weeks researching and preparing a report on a topic related to their career fields, and the research may be done in cooperation with a community firm. The "school without walls" concept is also utilized in the career programs' internships where students are given on-the-job experience. Plans are being made to employ more of the resources of the community to broaden the learning experiences of Moraine Valley students.

To permit the student to progress at his own rate through learning activities designed to meet the behavioral objectives established for each course, Moraine is moving in the direction of individualized instruction. Presently in some classes students may achieve course objectives in less time than afforded by the traditional semester. Those students who require additional time are not penalized by time restrictions. Courses which presently offer these self-paced individualized units of instruction are political science and drafting. However, varieties of individualized learning and independent study are being offered in such areas as social science, literature, composition, humanities, drafting, biology, chemistry, mathematics, geography, and language.

To permit random achievement monitoring, computer-assisted testing is being experimented with in the math area. Computer programs are being developed which will determine whether students enrolled in MTH 117 have achieved the

course objectives, assist students having difficulty mastering the objectives, allow the instructor to check the progress of any or all students at any time, and evaluate each student via a random testing technique. The entire experiment should provide a complete, automated learning package for MTH 117 by the 1971 Fall semester.

Future Directions in Instruction

Moraine Valley Community College is developing behavioral objectives and allows each student the opportunity of achieving these objectives through formal or informal means.

Moraine Valley Community College is committed to the principles of the student's right to succeed, and success most often results if the learner is aware of what is expected of him, is permitted to progress at his own rate, and is evaluated on the basis of measurable behavioral objectives. Individualized instruction is learner-oriented, and Moraine plans to make individualized instructional programs available to the student. This will be done by implementing the systems approach and its six-part design rational, establishing behavioral objectives of the planned instruction, determining the level of present performance by pretesting, developing instructional strategies to insure learning, testing to determine the level of student mastery, and revising the system to increase its efficiency.

At the present time, work is being done on establishing measurable behavioral objectives for each major discipline area. Some instructors are receiving extra compensation to develop individualized, self-paced systems approach in Social Science 101, 102, Humanities 101, 102, Communications 101, 102, Accounting and Technical Math. Computer-assisted instruction programs are presently being developed in the math area, and continuous on-line work is being planned in other areas.

Identifying the skills necessary for the transfer student and for the career student will enable us to state in the college catalog the behavioral objectives designed for each program. The student will then know exactly what the program entails and will be able to choose those objectives most relevant to his future goals.

Although the major direction of this institution is toward individualized learning, it is recognized that some students prefer the formal atmosphere usually associated with the traditional classroom. To serve these students, a mix of the traditional approach and the systems approach will be maintained. Mode of instruction will be indicated on class schedules, and the student will be able to choose the learning method most appropriate to his needs and abilities.

For those people in the community who, by their abilities, job experiences, skills, and personal study, have learning experiences equivalent to some of those being offered through means at MVCC, GAP (Goals Achievement Plan) is now functioning on a regular basis. Through GAP, academic credit can be given for those non-traditional learning experiences which can be measured and expressed in academic terms. For those who do not have the job experiences but believe they possess the academic skill, proficiency exams are available.

Moraine Valley Community College will remain committed to innovation in education, but that commitment will be flexible enough to recognize that student success should always be the primary concern, and innovations must always be evaluated on that basis. Evaluation of offerings is an on-going process at Moraine, and its goal is to determine the efficiency of curricular and innovative changes. Should evaluative data be negative, programs would be modified to remedy recognized deficiencies or to meet changing requirements.

"But, after all, brains are not
the best things in the world."

"Have you any?" inquired the scarecrow.

"No, my head is quite empty," answered
the Woodman, "but once I had brains,
and a heart also; so, having tried them
both, I should much rather have a heart."

L. Frank Baum
"The Wizard of Oz"

INDEPENDENT STUDY IN AMERICAN COLLEGES AND UNIVERSITIES

Henry C. Allan, Jr.
December 1970

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I. Scope of Paper:

This paper will be limited to a survey of a form of individualized instruction, generally referred to as "independent study," at the undergraduate level in American colleges and universities.

A few outstanding programs, such as those developed at Princeton, Swarthmore, Stanford and Wooster, will be examined in some detail and notice will be taken of their influence upon other institutions of higher learning throughout the United States.

There will be little or no attempt to evaluate the influence of such other educational developments such as the several forms of programmed instruction, teaching machines of many sorts, "systems" approaches of a variety of types, behavioral objectives, team-teaching, etc. It is enough, perhaps, to note that all such innovations challenge the conventional lecture-classroom pattern of teaching and, as such, contribute to a climate in which various alternative modes of instruction may receive serious consideration.

Also excluded from consideration in this survey are the contributions of such other academic disciplines as Psychology, which has so profoundly affected many of the aforementioned methods of learning. Little treatment will be afforded the numerous educational applications of the American military, especially during World War II.

Industry, with its early experiments and later successes with various systems approaches, is also without the scope of this paper. The highly imaginative efforts of educators in a number of American high schools might well fit into a larger, more comprehensive treatment of independent study in the United States.

Some attention will be devoted to "honors" programs on campus of a number of colleges and universities, although "honors," as ordinarily constituted, is a somewhat restricted type of independent study. Tutorial and preceptorial programs, which are often even more restricted, are likewise included as they are part of the same general process.

II. Definition of Independent Study:

B. Frank Brown defines independent study as "an opportunity ... to master an area of knowledge through independent organization and learning."[1] Bonthius, Davis and Drushal see the process as one involving "a high degree of freedom on the part of the student in choosing a topic and developing it."[2] Generally, the method is viewed by college and university administrators as one which emphasizes two characteristics: (1) individualism, in the sense of allowing for individual interests, needs and abilities and, (2) independence in the freedom of the individual to select, structure and implement a particular project or set of learning objectives.

Bonthius and colleagues developed their definition of independent study by a systematic method of elimination. First, they identified five basic methods of academic instruction. These are: (1) the lecture system, (2) classroom recitation, (3) group discussion, (4) laboratory work and (5) those methods "which utilize individual instruction."[3]

Individualized instruction, the authors contend, involves a "one-to-one relationship between the teacher and the student with the student's interest and ability a determining factor in the rate and direction of his development."[4] Within this method, however, there are two distinct categories or subdivisions, one incorporated into the regular classroom-course organization

1. Brown, B. Frank, Education By Appointment: New Approaches to Independent Study, Parker Publishing Company, West Nyack, New York, 1968, page 77.
2. Bonthius, Robert H.,Davis, F. James and Drushal, J. Garber, The Independent Study Program in the United States, Columbia University Press, New York
3. Ibid., page 4
4. Ibid.

and the other "done outside courses."[5] It is this last category - that work done outside regular, scheduled course offerings that constitutes "independent study" in the strict sense of the term.

Such activities as laboratory work, field projects, library research, book reports, term papers and the like are, obviously, forms of individualized instruction. They are, however, properly classified as "adjuncts to the course, and ...secondary to the calssroom procedures."[6] Independent study, then, is not simply an ancillary function, nor an aspect of something else, nor some kind of appendage of "regular" schooling, but a distinct and unique method of instruction with its own rubrics and philosophy.

Bonthius, Davis and Drushal go one step further in honing their definition of independent study. Not content to place the method outside regular course organization, they differentiate between three forms of non-classroom study namely (1) credit for nonsupervised reading, (2) tutoring and (3) independent study. The differences are that in both the reading programs and the tutoring arrangements, the faculty maintains "close touch with the work of the student, serving both as counselor and guide."[7] Independent study involves substantially less counselling and guidance and, generally, much less structure.

While the precision of these definitions is extremely helpful in the identification of methods of instruction across the county, it should be noted that the term, "Independent study," is used broadly, if not promiscuously, in college and university catalogs and other publications to describe almost any

5. Ibid.

6. Ibid.

7. Bonthius, et al., op. cit., page 7.

type of individualized academic pursuit, ranging from term papers on the one hand to extra-curricular, off-campus projects, on the other.

The criterion employed throughout this survey is close to that of Bonthius, Davis and Drushal. Independent Study if considered as a separate-but-equal instructional mode. "Separate," in the sense that it is external to the regular course offering, and "Equal," in that it carries comparable academic credit and "counts" toward graduation and a degree. A high degree of student decision-making in both the selection and implementation process, is another prime characteristic of independent study, as developed in this study.

One additional characteristic remains: the restriction in all but a very few schools offering independent study to the superior student. From its inception, the "major impetus (and) the desire was to stimulate the best students,"[8] and to "find some way to encourage the intellectually elite."[9] Requirements set forth in most college and university catalogs for independent study usually include (1) a grade point level, often a B average, or better, (2) approval from the department and (3) some sort of certification by an institutional committee or other charged with regulation of the program. Superior performance, or some other dramatic indication of above-average potential, seem to guide the thinking of those persons administering independent study programs. Randolph-Macon College is an exception in which mediocre students apparently were able to "surpass themselves in independent study."[10] George Williams College is more typical with its requirement of B standing or better, with previous course credit in the particular area of inquiry and "written consent of the instructor and the divisional director."[11]

8. Bonthius, op.cit., page 16

9. Ibid., page 17.

10. Ibid., pages 36-37.

11. Undergraduate Program and Course Descriptions at George Williams College - 1971, George Williams College, Downers Grove, Illinois, page 3.

III. European Antecedents:

Although some writers make reference to Antiquity and to the Socratic method,[12] generally, or, more specifically, to something like the Phadrus of Plato,[13] the substance and much of the form of independent study is drawn directly from the great British universities and, expecially from Oxford. B. Frank Brown describes American independent study programs as "spin-offs from the Oxford model."[14] Credits and hours were "unheard of at Oxford and no courses were required."[15] Bachelor of Arts degrees were granted solely on the basis of a series of very exacting examinations, plus "a minimum term of residence."[16]

The core of the Oxford University program was, and is, its tutorial system. Under the guidance of tutors, students spent most of their time reading books suggested by their tutors, occasionally attending lectures specially recommended by him, and meeting with their tutors in either weekly or bi-weekly conferences. An essay was generally required at these tutorials to be read aloud by the student, and commented upon, vis-a-vis substance and manner of presentation. Assignments for the next tutorial would be made at that time.

The tutorial system in Europe dates b ack to at least the Fifteenth century. It received its greatest impetus, however, in the Seventeenth century, in 1634, with the enactment of the so-called, "Laudian Code." These laws, named after their author, William Laud, Archbishop of Canterbury, made the tutorial system compulsory in all British universities. Responsibility for learning, including morality, was placed squarely upon the shoulders of the English tutor.[17]

12. Brown, op.cit., page 74.

13. Knapp, J. Merrill, "Points for Preceptors," Princeton University Princeton, New Jersey, 1962.

14. Brown, op.cit., page 23.

15. Ibid., page 26.

16. Ibid., page 27.

17. Brown, op.cit., page 25.

British extra-mural or external degree programs, and particularly that offered by the University of London, was still another model for independent study in America. Under this system, with minor variations from university to university, students were admitted to candidacy via the mails from places as remote from Londaon as New Zealand and Hudson's Bay. They then proceeded to prepare themselves, on a totally and completely independent basis, for examinations. The writer, admitted as an "external advanced student" for a Bachelor of Arts with Honors at the University of London in 1957, was directed to be ready for the final examination "not later than one calendar year."[18] The university maintained an "advisory service" for those external degree students who requested such direction.[19] While making no explicit recommendations nor endorsements, the university informed the writer of three proprietory schools in England that offered correspondence studies designed to assist students pass the University of London examinations.[20] In fact, the private English correspondence schools guaranteed, with certain conditions, that external degree students pass the exams, and promised, contractually, to continue to work with said students until such time as they received passing grades, or voluntarily terminated their efforts.[21] Examinations are held "at local centres...on the same dates and at the same times as the examinations in London." External degree candidates take the same examination papers as those students studying in residence, and "their scripts are marked by the same examiners."[22] The writer,

18. "Registration As An External Student," The University of London, Senate House, W.C., I., L.E. Ball, External Registration.

19. "General Regulations for External Students," The University of London, Senate House, London, W.C. 1, September, 1956.

20. Letter from L.E. Ball, External Registrar, The University of London, Senate House, W.C. 1, London, England, November 15, 1957.

21. "Form of Guarantee," Wolsey Hall, Oxford, Proprietors: Diploma Correspondence College, Ltd., September 26, 1957.

22. "General Regulations for External Students," op. cit., IX.

at the time a resident of Michigan's Upper Peninsula, was directed to contact the British Consulate in Detroit where the University of London examinations were held for students in the Detroit consulate area. Proctored by officials of the consulate, examinations were then sealed and mailed to the university for grading.[23]

IV. Nineteenth and Early Twentieth Century Developments:

Independent study at the undergraduate collegiate level in America is basically a Twentieth century phenomenon. In fact, it was not until the third decade of this century before the system began to take hold with "more than seventy-five institutions (adopting) some type of individual instruction."[24]

There were efforts in the Nineteenth century to offer this type of individualized instruction, but they were few and far between. St. Vincent's College in Latrobe, Pennsylvania, introduced a program of independent study in 1870.[25] The University of Illinois "required a thesis for the Bachelor's degree" from the time of its inception until 1895, when independent study and the writing of the undergraduate thesis became optional.[26] Wesleyan College (Georgia) required an undergraduate thesis as early as 1873 and the University of Michigan introduced what it styled, the "University System," a type of independent study, in 1883.[27] An honors program, organized "on the basis of a thesis" was inaugurated in 1888, at the University of Vermont.[28] It is true

23. Letter from S.R. Airey, H.M. Vice Consul, British Consulate General, 720 N. Michigan Avenue, Chicago, Ill., June 14, 1957.

24. Bonthius, op.cit., page 12.

25. Ibid.

26. Ibid.

27. Aydelotte, Frank, Breaking the Academic Lock Step: The Development of Honors Work in American Colleges and Universities, Harper & Brothers, New York and London, 1944., page 47.

28. Ibid., page 48.

that Harvard University introduced the elective system in the United States over a century ago (1869),[29] but while this innovation profoundly affected American education, it was only a forerunner of independent study. Beyond these few attempts, higher education in America at the turn of the century remained largely a matter of administrative prescription and instructional conformity.

The floodgates slowly began to open in the early years of this century. The University of Illinois, already a pioneer in the field, established a voluntary, for-credit program of independent study in 1904.[30] Bates College (Maine) required a thesis for the Bachelor of Arts degree beginning with the class of 1907 and Guilford College (North Carolina) "required independent study for credit beginning in 1910."[31] This small but progressive Quaker college required senior theses at least back to 1900 and expanded independent study to both the junior and senior years in 1927.[32] Columbia University established honors programs before 1910 and the University of Missouri "adopted a plan for reading for honors in 1912."[33] Sometime around 1912, seniors at the University of Washington were given the option of working "entirely by independent study instead of taking courses."[34] Rice University, then Rice Institute, offered "a great deal of independent study in various departments as early as 1912."[35]

29. Brown, op.cit., page 20.

30. Bonthius, op.cit., page 35.

31. Ibid., page 13.

32. Letter from Carole M. Treadway, Curator's Assistant, Quaker Collection, Guilford College, Greensboro, North Carolina, Dec. 7, 1970.

33. Aydelotte, op.cit., page 48.

34. Aydelotte, op. cit., page 48.

35. Letter from M.V. McEnany, Dean of Undergraduate Affairs, Rice University, Houston, Texas, December 1, 1970.

Other colleges who began this type of instruction between 1911 and America's entry into the first World War were Reed (Oregon), Lafayette (Pennsylvania)[36] Manhattenville (New York) and Muskingum (Ohio).[37] Middlebury (Vermont), which incorporated a "certain amount of independent study" into their honors programs, beginning in 1917,[38] should also be included among the pioneer institutions.

Princeton University's preceptorial method of instruction merits notice. Established at the university in 1905 under the leadership and inspiration of Woodrow Wilson,[39] Princeton became the first major institution (and an Ivy League one, at that) to break out of "the old system of lectures and quizzes,"[40] and to accomplish this feat on an institution-wide basis. A course under the university's preceptorial program and strongly resembling the Oxford system, consisted basically of readings "to which the lectures or textbooks are complimentary."[41] Later, in 1925, Princeton superimposed upon its preceptorial system what was "virtually a tutorial system in connection with a new program of upperclass concentration, known as the Four Course Plan."[42] Princeton had moved away from the British system and independent study, back toward more conventional curricular offerings.

36. Bonthius, op. cit., page 13.
37. Ibid., page 35.
38. Aydelotte, op. cit., page 36.
39. Knapp, op. cit., page 1.
40. Ibid., page 4.
41. Knapp, op. cit., page 5.
42. Ibid., page 6.

V. Between the Two World Wars:

Two characteristics of modern Independent study programs developed in America around 1920. The pioneer efforts, introduced in the latter part of the Nineteenth and early decades of the Twentieth century, were "required of all students."[43] Voluntary programs, as indicated earlier, were offered on a few college campuses in the early years of this century so that, by 1920, both types were in existence. But, this condition was change, radically:

> "During the twenties and the thirties, a large number of plans, mostly voluntary, were established. In recent years, there appears to have been an increase in the proportion of required programs, but even so only about thirteen percent of the country's present plans are required."[44]

Independent study in the United States slowly evolved from a required or compulsory program for all students to a voluntary system open only to some students. In general, independent study at the undergraduate level had "become the exclusive privilege of the able student."[45] In this spirit, Columbia University developed a junior and senior reading course in the "great books from Homer to Freud," in 1920.[46] Massachusetts Institute of Technology also offered its better students an honors option, in electrical engineering, in 1925.[47] In 1927, Park College (Missouri) began a very comprehensive program for their student elite which allowed as much as one-third of their time in their junior year and two-thirds of their senior year to be spent in honors work.[48] Other institutions joining a growing list of honors programs were the University of Colorado (1930), the University of Kansas (1931) and the University of Michigan (1939).[49]

43. Bonthius, op.cit., page 211.
44. Ibid.
45. Brown, op.cit., page 23.
46. Aydelotte, op.cit., page 68.
47. Aydelotte, op.cit., page 75.
48. Ibid., page 64.
49. Ibid., pages 95-96.

Honors programs in the United States varied considerably from campus to campus, including the amount of independent study authorized at a particular institution. Wabash College (Indiana) introduced an honors system, for example, in 1932 which required all students to pass comprehensive examinations in one of four divisions. On the basis of the test results, prepared for in conventional learning settings, students were awarded levels of honors (ie. first, second and third) or "merely a pass."[50]

The University of Chicago's accelerated academic program, introduced during the Hutchins era in the early nineteen thirties, allowed students to take the comprehensive examination whenever they felt they were ready. This self-paced type of program gave undergraduates "considerable freedom" with respect both to classroom attendance, and to methods of preparation.[51]

Two independent study programs, developed between the two World Wars, deserve special mention. They are the systems introduced at Swarthmore College (Pennsylvania) and at Stanford University. Swarthmore's program, "universally regarded as the most influential of the early college independent study programs,"[52] was begun in 1921. Swarthmore's new president, Dr. Frank Aydelotte, was the individual who "had most to do with its establishment."[53] Course work and the hour system were made optional for superior students. The honors degree was awarded on the basis of a series of examinations "written and oral, conducted by external examiners."[54] Swarthmore's program was described as an

50. Ibid., page 50.

51. Aydelotte, Op. cit., page 51.

52. Brown, op.cit., page 21.

53. Letter from Charles E. Gilbert, Provost, Swarthmore College, Swarthmore, Pennsylvania, November 16, 1970.

54. Aydelotte, op.cit., page 33.

an emphasis upon:

> "...freedom from ordinary classroom routine and close association with faculty members in small seminars, concentrated work in broad areas of study, and maximum latitude for the development of individual responsibility."[55]

Although Swarthmore College's independent study program acknowledged its debt to Oxford University both in concept and implementation, as early as 1944, President Aydelotte could report the substantial changes that had evolved in the Swarthmore program. The system at the college, he wrote, was not "so much a transplantation of Oxford methods...as a system of our own based upon the same principles, but adapted to our conditions." One of the chief differences seemed to be "the substitution of the seminar method for individual tutorials."[56]

Independent study, whether in honors or some other form, was apparently something of a reaction both to mass education, per se, and to the mediocrity which wholesale college education often fostered. Dr. Edgar Robinson of Stanford University was one educator who decried the paucity of "intellectual competition"[57] on American college and university campuses. The "so-called democracy of education," he wrote, has "leveled down attainment to the capacity of the average or less."[58] Independent study of a sort, at least, had long existed at Stanford.

> "From the time of the opening of Stanford in 1891 there had existed a practice of individual study made possible by personal relationship between faculty and students."[59]

55. Swarthmore College Bulletin, Catalog Issue, 1970-71, page 10.

56. Aydelotte, op.cit., page 33.

57. Robinson, Edgar Eugene, Independent Study in the Lower Division at Stanford University, 1931-37, Stanford University Press, Stanford, California, 1937, page 1.

58. Ibid.

59. Ibid., page 10.

However, as the democratization process in American higher education took hold and as increased numbers of undergraduates were enrolled at Stanford, the practice became "difficult and almost impossible" to continue.[60]

In August of 1925, a program of independent study was provided for "superior students in the Upper Division (ie. junior and senior years)."[61] The primary aim of this system was to "stimulate the superior student to do more work and better work than he would ordinarily do without individual supervision."[62] Stanford experimented for a time, from 1933 to 1937, with a modified independent study program which provided individual instruction in the Lower Division (freshman and sophomores). A social science course titled, "Problems of Citizenship," was required of all freshmen.[63] The superior student remained the first concern of the Stanford's faculty vis-a-vis independent study, however. Intellectual challenge for the brighter student and wide opportunities for the kind of development independent study offers the self-motivated individual, remained the "guiding principle "[64] In these developments at Stanford within both the Upper and Lower Divisions. In 1935, an independent study course listed as "History of Western Civilization," was a "required freshman course."[65] These exceptions, however, only proved the rule which, at Stanford University, was a system designed to meet the needs of those students whose performance, or obvious potential, was well above average.

60. Ibid., page 1.

61. Robinson, Edgar Eugene, Independent Study in the Lower Division at Stanford University, 1931-37, Stanford University Press, Stanford, California, 1937. page 11.

62. Ibid.

63. Ibid., page 23.

64. Ibid., page 1.

65. Ibid., page 14.

Compared with Oxford University or even Swarthmore, independent study at Stanford was fairly conservative. For example, the university made liberal use of "the lecture system, section teaching and seminars."[66] While primary stress in Stanford's independent study programs was placed "on reading, writing and oral expression of student's ideas,"[67] group, as well as individual, conferences were regularly scheduled.

Some of Stanford's conservative features were apparently prompted by their early experience with the British form of "pure" independent study. Stanford students complained to faculty that they missed "the discussion with other students and the opportunity to compare ideas and views."[68] Accordingly, the individual faculty-student conference, which had been the initial procedure, was gradually supplemented by the small group conference. In some cases, the group conference completely replaced the individual meeting. The preferred method at Stanford became a "combination of individual and group conferences."[69] The conservative swing (ie. return to more conventional American modes of instruction) at Stanford University also resulted in some instructor's use of a "modified form of lecturing" in the independent study group seminars.[70]

66. Robinson, op.cit., page 14.
67. Ibid.
68. Ibid., page 19.
69. Ibid.
70. Ibid., page 20.

VI. From the End of World War II to Sputnik I

The College of Wooster (Ohio) has distinguished itself in American academic circles by the fact that it has for a number of years operated "a compulsory independent study program."[71] Founded just after the Civil War (1866), Wooster began an honors program in 1916. The system was almost identical to others developing throughout the country at that time:

> "...a voluntary program, open only to students with high grades, the honors program seems to have been reasonably successful and to have improved somewhat in quality during its thirty-five year history. Owing to the small numbers participating, its voluntary nature, and probably in some measure to the high caliber of the students involved, the program operated with little strain upon the faculty. However, it involved only about 10 percent of the students."[72]

Here, again, the pattern emerges: a diminutive program restricted to the academic elite; a high path leading to the educational mountain-tops, but lightly traveled.

A radical and highly significant change occured at Wooster in 1945 with the succession of Dr. Howard F. Lowry as president of the college. A former faculty participant in independent study programs at Princeton, Dr. Lowry had "the firm conviction that the essence of this program could be transplanted to the small liberal arts campus."[73] The implementation of this conviction began in 1946 with the junior class of the college who were "given the option, but not urged to start independent study."[74] The same choice was offered the next class of third-year students in 1947. In the fall of 1948, all junior students with certain exceptions made for returning World War II veterans, were "required to enter the program."[75]

71. Bonthius, op.cit., Forward, V.
72. Ibid., page 99.
73. Bonthius, op.cit., pages 99-100.
74. Ibid., page 101.
75. Ibid.

Changes in independent study at the College of Wooster from its inception until 1954 were functional, rather than philosophical or theoretical. The basic program - an institutionwide system of individualized instruction available to all students - remained intact. Some of the more important changes were:

1. More individual meetings of advisors and students.
2. Increase of number of areas in which students could develop independent study.
3. Acceptance of field projects, in addition to papers.
4. Development of study manuals, or instruction sheets to guide students in written work.
5. Adoption, by some departments, of oral field examinations.
6. Junior year seminars added in some departments (and dropped in others).
7. Initiation of senior year seminars in some departments.

The thinking behind the changes at Wooster in the independent study system, is revealing. A few departments found that seminars, related to independent study, had become "deadly" and "nonproductive." However, the majority of the faculty involved in these programs believed that the seminars were needed to provide the "average undergraduate...instruction and orientation in independent work."[76] The need to acquaint students with such basics as (a) methods of research, (b) mechanics of independent study, per se, (c) sources of bibliographical information, (d) techniques of compiling data, (e) departmental requirements for independent study and (f) processes for selection of topics,[77] seemed best satisfied in a small group or seminar setting.

In addition to the influence of independent study or honors programs at institutions like Wooster, Swarthmore, Stanford and Princeton, the "climate" for academic innovation was significantly influenced by the educational activities

76. Bonthius, op.cit., page 108.

77. Ibid.

related to the war effort in America for from 1941 until 1945. The"conspicuous success of the armed forces"[78] training both officers and enlisted personnel, especially, but not exclusively, in the use of audio-visual methods, was felt throughout the academic community in America. While the various "systems" approaches used by the military were, in one sense, the very antithesis of independent study, they were curiously related in two important aspects: one, they too, constituted a sharp break with conventional lecture-classroom instruction and, two, this form of education was learning-centered, rather than instruction-centered. Success in learning, whatever the skill might have been, was paramount in the thinking of the U.S. Military. Learning was, in a sense, "guaranteed." The somewhat haphazard nature of mass collegiate instruction, with its high, projected attrition rates, was a luxury that the technical training programs of the armed forces could ill afford.

The Sputnik I success in 1957 was a second major influence upon the educational structure in America. The surprising technological successes of the Soviets so alarmed Americans, educators and politicians included, that expenditures for educational prurposes skyrocketed from seventeen billion dollars a year in 1956 to sixty-five billion only eleven years later. The rate of "instructional innovation in New York public schools more than doubled"[79] in the fifteen months following the Sputnik launching. Course offerings, especially in technical and related fields, on university and college campuses were also greatly expanded.

78. Nelson (Forty-Eighth Yearbook, N.S.S.E.) op.cit., Editors Preface, V.

79. Pfeiffer, John, A New Look at Education-Systems Analysis In Our Schools and Colleges, The Odyssey Press, New York City, 1968, page 13.

VII. The Sixties and Beyond

Purdue University's audio-tutorial system was a pace-setter for a variety of highly individualized, if not strictly "independent," programs that cropped up in the last few years. Begun in 1961 in the field of Biology by Dr. S.N. Postlethwait, the program started out as a simple taping of lectures, supplementary ones, at that, to "provide an opportunity for students with poor backgrounds to keep up with the class."[80] This remedial characteristic, coupled with considerable direction of students by faculty and required lecture and recitation, set this program off from the types of independent study programs previously cited (ie. Princeton, Swarthmore, etc.).

The Purdue system involves three basic study sessions. They are (1) the general assembly session, (2) the small assembly session and (3) the independent study session. The general assembly is designed for those kinds of activities which "can best be done in a large group."[81] These include guest lectures, lengthy films and major examinations. Required attendance is a characteristic of this aspect of the audio-tutorial program. The small group sessions are weekly, forty-five minute meetings, involving an instructor and seven or eight students. The sessions are highly structured with ten minutes scheduled for an oral quiz, followed by a twenty minute written test and concluded with a thirty minute presentation by one of the students. The student doing the presentation is selected at random."[82] He follows a "rather specific format" including such things as identification of various biological items, relating items to a predetermined course objective and, lastly, and most importantly, realizing the

80. Postlethwait, S.N. (et.al) The Audio-Tutorial Approach to Learning: Through Independent Study and Integrated Experiences, (2nd Edition), Burgess Publishing Company, Minneapolis, 1968, page 9.

81. Ibid., page 16.

82. Postlethwait, op.cit., page 14.

prestated behavorial objective through either discussion or demonstration.

Purdue's independent study sessions are normally centered in the university's learning center where, by use of a range of audio-visual equipment, students can progress at their own pace, to some degree. Theoretically, students are not "captive to any of the activities included within the learning center"[83] and may use other means to accomplish the behavorial objectives of the course.

> "All students are free to ignore the taped program or any other segment of the sequence. He may use the objective sheets as a guide and structure his own study program in the way that he pleases."[84]

The threefold program at Purdue University, including required assemblies, weekly examinations, random selection for recitation, etc., would seem to rule out much "independent" work, as it has been defined throughout this paper. It would seem extremely difficult, if not impossible, to allocate those (required) times and make those (required) preparations and still have time or energy left for truly independent, self-directed study. The second option, offered at Purdue (ie. to ignore the entire audio-tutorial sequence) would seem to be consistent with the basic principles of independent study and, therefore, similar, at least, to programs described elsewhere.

A development among newer institutions of higher learning in the Sixties is the multi-media or computerized "systems" approach, some of whose objectives are identical to those in independent study and, at least a few of whose methods are not totally dissimilar. Oral Roberts University in Tulsa, Oklahoma--founded by and named after the well-known evangelist and faith-healer--is representative of this trend. At Oral Roberts, a multi-media system permits "audio-video programmed instruction with provision for audio and video tape responses for

83. Ibid., page 12.

84. Ibid., page 18.

comparative analysis for individual study or for group evaluation."[85] While individualized instruction is a primary concern of the Oral Roberts faculty, the tapes, records, television, etc., only "supplement classroom lectures."[86]

Oakland Community College (Michigan) is another school that would seem to fit into this category. At their Orchard Ridge campus, Oakland uses the hardware and software of multi-media systems as not only a means of dissemination but, also, as a way of freeing faculty so that they have time to relate to students on an individual basis.

> "...it is possible...by means of audio, visual, programmed materials and electronic equipment to release the teacher where this ratio (one-to-one) can approach the ideal."[87]

The type of "systems" instruction employed by institutions like Oakland Community College is, also not really independent study in the terms employed throughout this survey. However, its susceptibility to the independent mode of instruction seems obvious. Schools like Oakland and Oral Roberts indicate no particular concern for programs restricted to superior students: in fact, they seem to be thinking more about the average, or even below-average, student (and of new ways to motivate this type of student). Beggs and Buffie report that many colleges in the United States, and not just the newer ones, are now (1969) coming to the view that independent study may be "even more appropriate...for lower classmen of varying academic abilities."[88] One such campus is Sullins

85. "Dial Access Audio-Video System," Oral Roberts University, Tulsa, Oklahoma, page 1.

86. Tulsa Magazine, Tulsa Chamber of Commerce, Tulsa, Oklahoma, July 1966, page 3.

87. Tirrell, John E., Orchard Ridge Campus, Oakland Community College, 1969, page 1.

88. Beggs, David W. III and Buffie, Edward G., Independent Study, Indiana University Press, Bloomington, Indiana, and London, England, 1969, page 11.

College, a two-year liberal arts college for women in Bristol, Virginia. In June, 1968, President William T. Martin asked for programs "in which independent study techniques might be more broadly used to the advantage of all students."[89] The implementation of President Martin's idea came in the form of an interim term, a period of four weeks in January, in which Sullins students might choose special interest seminars, projects of many types or independent research. Interim session work could be done in a single discipline or on an interdisciplinary basis.[90]

Three institutions that seem to be developing independent study even further in the direction away from conventional lecture-discussion modes are Antioch College, Harvard University and Goddard College (Vermont). Antioch College, convinced that independent study contributes to "the quality of students' education,"[91] experimented with methods that offered the students more, rather than less, responsibility both in the determination and the implementation of their undergraduate work. The college also expressed a concern which other institutions either didn't share, or were not anxious to advertise: namely, the saving of "instructional time."[92] Antioch College's independent study program closely resembles those of Swarthmore, Wooster and Stanford in its basic structure, or non-structure. Some Antioch College faculty use the small group technique, meeting regularly with from five to ten students. Some instructors prefer the one-to-one method with their independent study students.

89. Wheless, Ben F., "Independent Study at Sullins: A New Educational Plan Based on Independent Study and Voluntary Research Projects," Junior College Journal, Volume 41, Number 2, October, 1970, page 27.

90. Ibid., page 31.

91. "Experiments in Independent Study(1956-60)," Antioch College Reports, Office of Educational Research, Antioch College, Yellow Springs, Ohio, March 1961, page 1.

92. Ibid.

Still others use "combinations of small group and individual independent study."[93] One feature which suggests that Antioch is at the forefront of the independent study movement in America is the trend toward "off-campus independent study."[94] This development, which would seem to recognize the validity of learning outside the sacred precincts of the campus--and even outside regular course offerings--opens up a whole range of new and exciting educational possibilities.

Although independent study is firmly rooted at Harvard University, described as "one of the principle innovations (at Harvard) in recent years,"[95] recommendations as recent as September 1970, if implemented, would introduce a totally new dimension of learning at that great institution. Some of the changes advocated at Harvard include:

1. The inclusion of various "nonacademic" studies, such as creative, political or social action field experience."[96]

2. A completely self-paced program for each student in independent study programs, which would enable each individual to determine his or her own rate of work over the four-year undergraduate period.[97]

3. The junior year or, possibly, any one of the four years, be spent off-campus and away from Harvard. There would be great flexibility as to the nature of study or work done by the student during this time, The recommendation in this instance calls for a "reasonable plan of activities."[98]

93. Antioch College Reports, op.cit., page 3.

94. Ibid., page 4.

95. May, Ernest R. (ed.) "Progress Report on the Review of the Undergraduate Curriculum," Harvard College, Cambridge, Mass., September 25, 1970, page 4.

96. Nickens, Jack C., "Discussion of the HOuse Reports, "Progress Report, etc., op.cit., page 6.

97. "North House Curriculum Reform Proposals," "Progress Reports, etc.," op.cit., page 3.

98. Ibid., "Interim Report of the Kirkland House Curriculum Reform Study Group," page 6.

Goddard College's definition of independent study gives insight as to that school's progressive development of this system on that campus.

> "We define independent study in this way: It is planned and carried out by the student with the help and advice of a faculty member or members, but it remains the student's responsibility to direct and control the study."[99]

There are three basic types of independent study at Goddard. One, which consumes from one-third to one-half of the student's total academic program in a given trimester, offers options in library research, off-campus field study and in "special projects in the visual and performing arts."[100] The second type is the "Field Experience Trimester," which offers students a wide variety of field study geographically removed from the Goddard campus.[101] The commitment of the college to independent study can be seen in the faculty recommendation to students to spend three of their nine trimesters in this type of away-from-campus learning activity.

As if these programs weren't innovative enough, Goddard College views its "Senior Year Plan," as its "most ambitious" offering in the independent study series.[102] In this program, the senior student must outline his own personal study-plan to cover his final two trimesters in college. Once accepted, the student has the complete responsibility to "carry out that plan, using whatever resources, human and otherwise, which are most fitting."[103] Included among Senior Year Plans developed by students at Goddard College are (a) teaching in

99. Letter from Mrs. Corrine Elliott, Director of Records, Goddard College, Plainfield, Vermont, November 27, 1970.

100. Ibid.

101. Letter from Mrs. Elliott, op.cit.

102. Ibid.

103. Ibid.

a school in England, (b) working with disturbed children, (c) writing novels and books of poetry, (d) choreographing and performing dances and (e) acting and directing plays.

In 1965, the Ford Foundation funded a pilot project for independent study involving Colorado, Lake Forest and Allegheny Colleges. A year later, three additional schools, Colby (Maine) Florida Presbyterian and Pomona (California), were added to the Ford program. The purpose of the grant was to:

> "...discover whether it was possible to select and identify students who could assume a major part of the responsibility for their own education and whether it would be possible for students to proceed with their education while enjoying an unusual degree of freedom in a typical undergraduate setting.[104]

In practical application, students engaged in independent study at Colorado College are not required to follow a structured curriculum. There are no required classes and no grading system. Students are permitted to "pursue the objectives of (their)...education (completely) by independent study."[105] One quite new innovation that grew out of the Ford Foundation project is a type of intensified or concentrated study in which one course is compressed into "time blocks of three and one-half weeks."[106] Students at Colorado College enrolled in this curriculum take just one course during this short period.

At Lake Forest College, juniors and seniors are responsible for developing their own, personal independent study proposal. This "package" or proposal

104. Report on the Ford Independent Study Program, Grant No. 650-0028 (Colorado College), page 1.

105. "The Ford Program: After One Year, A Good Prognosis," The Colorado College Magazine, Summer, 1966, Volume 1, Number 3, page 9.

106. Letter from J. Douglas Mertz, Chairman, Department of Political Science, Colorado College, Colorado Springs, Colorado, December 1, 1970.

requires approval from three members of the faculty: the instructor with whom the student desires to work, the appropriate department chairman and the dean. Freshmen and sophomores, wishing to participate in independent study, "must take a special petition to the Faculty Committee on Academic affairs."[107] Another unique feature of the Lake Forest College Program is the "collioquia which are group study projects."[108]

Allegheny College, the third of the three schools originally involved in the Ford Foundation pilot project, has an extremely liberal policy regarding types of independent study which can be done off-campus, in another city, state or country and, also, in areas of inquiry that would normally be excluded on the undergraduate level. These include (a) participation in summer theater, (b) work in hospital speech therapy, (c) production and/or direction of television documentaries, (d) study in Mexico and (e) analysis of one's own behavior.[109] Allegheny College, like Swarthmore and a handful of other institutions, in the United States, administer examinations, oral examinations at Allegheny, by outside examiners.[110] By utilizing this device, the punitive role of faculty (ie. punishing through a grading process) can be eliminated and instructors can concentrate on nonthreatening and supportive functions, such as

107. Letter from D.E. Bartlett, Director, Program II, Department of Religion, Lake Forest College, Lake Forest, Illinois, December 2, 1970.

108. Ibid.

109. "Individual Curriculum for Independent Study," I.C.I.S. Allegheny College, Meadville, Pennsylvania, 1969.

110. Day, James F. & Baseshore, Jean, "A Progress Report for 1968-69 and a Summary Report to the Ford Foundation," The Independent Study Program At Allegheny College, Allegheny College, Meadville, August 1962, page 2.

advice, counsel, evaluation, interpretation, etc. In recognition of the new role of faculty at Allegheny, "the college has appointed a staff of experienced preceptors (related to independent study) representing all three divisions of the faculty: humanities, social studies and natural science.[111] Preceptor and student work in close concert at Allegheny College:

> "During his first term, each student's program will consist of three parts. He will register for a course approved by his preceptor, work in it in the way prescribed by the instructor for all other students, and receive a recorded grade and credit. He will (next) finish a project or projects set for him by the preceptors and (lastly) he will finish one or more completely independent project of his own choosing."[112]

Allegheny's three-phase program has several obvious advantages: One, it provides a gradual increase in student responsibility, with a corresponding decrease in faculty direction. Obviously, too, faculty can identify those students whose motivation or self-discipline, or both, is inadequate to assume the responsibilities for the next level. There is, thirdly, a time factor for student maturation.

111. "The Independent Study Program at Allegheny College," Allegheny College, Meadville, Pennsylvania, 1968, page 1.

112. Ibid., pages 1-2.

VIII. Epilogue

It has been claimed that a "new instructional technology and...empirically-based science of pedagogy are in the process of emerging" and that it will dramatically and profoundly affect the "teacher of tomorrow."[113] The emerging cybernetic age, with its highly sophisticated computers and other automated processes, coupled with an exploding American and world population, would seem to dictate all sorts of changes, large and small, in education as well as every other facet of life. Mass production in education, long a reality in America as critics of the "multiversity" and of public school education have eloquently charged, must increase, rather than decrease in the face of such profound societal changes.

How, precisely, independent study fits into the cybernetic age is anyone's guess. Some means to siphon off superior students may be deemed desirable. The need to expand, in all directions, seems fairly obvious and may stimulate the growth of "nonacademic" independent study projects somewhat. Severe limitations on space in colleges and universities may encourage independent study trends toward both off-campus and away-from-campus projects. The need for differentiation and even greater specialization in a world larger and infinitely more complex, may also stimulate educators to devise even more academic options for students.

Cost and time factors which are, of course, closely inter-related, may--in the final analysis--determine the fate of independent study in American higher education. The going ratio of students-to-faculty in independent study will not satisfy harassed administrators under the gun to get more "production" for each (diminishing) educational dollar. At Williams College, for example, a

113. Johnson, Stuart R. & Johnson, Rita B., Developing Individualized Instructional Material, Westinghouse Learning Press, Palo Alto, California, 1970, Preface, iii.

faculty member advises one or two students, at most, in independent study.[114] A faculty member at Tennessee A. & I. described what he implied was a heavy teaching load, consisting of two courses and thirty-five independent study students.[115] These kinds of student-faculty ratios, translating as they do into cost factors, would hardly inspire emulation by many tax-supported institutions, especially junior and community colleges, where instructors teach five and even six courses and are responsible for two to three hundred students each.

As an instructional mode for the individual who possesses not only native intelligence and a good academic record of performance, but self-direction, as well, independent study, especially in some of its newer (ie. "non-academic") forms, promises to provide an element of diversity and quality in what otherwise might be a terribly standardized and regimented type of education. The appropriateness of independent study for the less intelligent, the less motivated and the less mature college student would, in light of increasing demands upon time and cost, seem highly questionable.

114. Bonthius, op.cit., page 194.

115. Ibid., page 195.

BIBLIOGRAPHY

Books:

Aydelotte, Frank, Breaking the Academic Lock Step: The Development of Honors Work in American Colleges and Universities, Harper & Brothers, New York & London, 1944.

Beggs, David W. III & Buffie, Edward G., Independent Study, Indiana University Press, Bloomington, Indiana & London, 1969.

Bonthius, Robert H., Davis, F. James and Drushal, J. Garber, The Independent Study Program In The United States, Columbia University Press, New York, 1957.

Brown, B. Frank, Education By Appointment (New Approaches To Independent Study), Parker Publishing Company, West Nyack, New York, 1968.

Henry, Nelson B. (Ed.) Forty-Eighth Yearbook Of The National Society For The Study Of Education, Part I, The University of Chicago Press, Chicago, 1949.

Johnson, Stuart R. & Johnson, Rita B., Developing Individualized Instructional Material, Westinghouse Learning Press, Palo Alto, California, 1970.

Pfeiffer, John, A New Look At Education Systems Analysis In Our Schools and Colleges, The Odyssey Press, New York City, 1968.

Postlethwait, S.N. (et.al) The Audio-Tutorial Approach To Learning: Through Independent Study And Integrated Experiences, 2nd Edition, Burgess Publishing Company, Minneapolis, Minnesota, 1968.

Robinson, Edgar E., Independent Study in the Lower Division at Stanford University, 1931-37, Stanford University Press, Stanford, Califronia, 1937.

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BIBLIOGRAPHY

Letters:

Airey, S.R., H.M. Vice Consul, British Consulate General, 720 N. Michigan Avenue, Chicago, Illinois, June 14, 1957.

Ball, L.E., External Registrar, The University of London, Senate House, W.C. 1, London, England, November, 1956.

Bartlett, D.E., Director, Program II (Department of Religion) Lake Forest College, Lake Forest, Illinois, December 10, 1970.

Elliott, Corrine, Director of Records, Goddard College, Plainfield, Vermont, November 27, 1970.

Gilbert, Charles E., Provost, Swarthmore College, Swarthmore, Pennsylvania, November 16, 1970.

McEnancy, M.V., Dean of Undergraduate Affairs, Rice University, Houston, Texas, December 1, 1970.

Mertz, J. Douglas, Chairman, Department of Political Science, Colorado College, Colorado Springs, Colorado, December 1, 1970.

Treadway, Carole M., Gurator's Assistant, Quaker Collection, Guilford College, Greensboro, North Carolina, December 7, 1970.

BIBLIOGRAPHY

Magazines, Catalogs, Reports and Miscellaneous Documents:

The Colorado College Magazine, Summer 1966, Volume I, Number 3.

Day, James F. & Basehore, Jean, "A Progress Report For 1968-69 and a Summary Report to the Ford Foundation," The Independent Study Program, Allegheny College, Allegheny, Pennsylvania, August 1969.

"Dial Access Audio - Video System," Oral Roberts University, Tulsa, Oklahoma, 1967.

"Experiments in Independent Study (1956-60), Antioch College Reports, Office of Educational Research, Antioch College, Yellow Springs, Ohio, March 1961.

"Form of Guarantee," Wolsey Hall, Oxford, England, Proprietors: Diploma Correspondence College, Ltd., September 26, 1957.

"General Regulations for External Students," The University of London, Senate House, London, W.C.1., September, 1956.

"Individual Curriculum for Independent Study," I.C.I.S., Allegheny College, Meadville, Pennsylvania, 1969.

Knapp, J. Merrill, "Points for Preceptors," Report of Dean Of The Faculty, Princeton University, Princeton, New Jersey, 1938.

May, Ernest R., "Progress Report on the Review of the Undergraduate Curriculum," Harvard College, Cambridge, Massachusetts, September 25, 1970.

"Orchard Ridge Campus," Oakland Community College, Bloomfield Hills, Michigan, 1969.

"Registration As An External Student," The University of London, London, Senate House, W.C. 1, England.

Magazines, Catalogs, etc. (continued-2)

Report on the Ford Independent Study Program," Grant No. 650-0028, Colorado College, Colorado Springs, Colorado, 1966.

Swarthmore College Bulletin, Catalogue Issue, 1970-71.

Tulsa Magazine, Tulsa Chamber of Commerce, Tulsa, Oklahoma, July, 1966.

Undergraduate Program and Course Description at George Williams College - 1971, George Williams College, Downers Grove, Illinois, 1970.

Wheless, Ben F., "Independent Study at Sullins: A New Educational Plan Based on Independent Study and Voluntary Research Projects, Junior College Journal, Co Volume 41, Number 2, October, 1970.