DOCUMENT RESUME

ED 191 115 CS 503 010

AUTHOR Munshi, Kiki S.
TITLE Telecourses: Reflections '80.
INSTITUTION Corporation for Public Broadcasting, Washington, D.C.
REPORT NO ISBN-0-89776-032-8
PUB DATE 80
NOTE 142p.: Prepared for the Station-College Executive Project in Adult Learning. Figures may be marginally legible.
AVAILABLE FROM Telecourses, Coastline Community College, 10231 Slater Ave., Fountain Valley, CA 92708 ($5.00, prepaid)

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Administrator Guides: *Educational Television: Interviews: Literature Reviews: Postsecondary Education: *Program Administration: *Program Development: *Program Evaluation: *Program Implementation: Recordkeeping: State of the Art Reviews: *Telecourses

ABSTRACT

Based on a review of existing literature and interviews with more than 50 individuals at television stations and colleges, this report describes the state of the art of telecourses. Following an introductory chapter, 13 chapters discuss the following aspects of telecourses: (1) definition and scope: (2) the institutional environment: (3) the audience: (4) telecourse adoption: (5) the economics of telecourses: (6) student services: (7) public relations (marketing, publicity, and promotion): (8) interaction between television stations and colleges: (9) factors that help or hinder station-college consortia serving adult learners: (10) benefits and problems: (11) evaluation: (12) alternate delivery systems: and (13) what the future holds for telecourses. Seven appendixes contain information on research from the Station-College Executive Project in Adult Learning (SCEPAL), on state financial support to institutions offering telecourses, on telecourse enrollments, and on a computer recordkeeping system: they also provide sample materials from a typical academic and administrative support package, sample student orientation letters, and other support materials. A bibliography is also included. (RL)

TELECOURSES: REFLECTIONS '80

by Kiki S. Munshi

Prepared for
The Station-College Executive Project in Adult Learning

Funded by
The Corporation for Public Broadcasting
1111 Sixteenth Street, NW
Washington, DC 20036

1980

The opinions expressed in this book are those of the author and do not necessarily reflect the opinions of the Corporation for Public Broadcasting.

1111 Sixteenth Street, NW
Washington, DC 20036

An Equal Opportunity Employer--M/F/H/V
ISBN: 0-89776-032-8

Book design: Louis P. Neiheisel II and Nancy Sjoberg
Cover design: Louis P. Neiheisel II

The Station-College Executive Project in Adult Learning is a cooperative project conducted by:

Coastline Community College
KOCE-TV
KPBS-TV
The Nebraska Educational Television Network
The University of California, San Diego
The University of Mid-America

Project Executive Committee

Mr. Jack McBride, Chairman
Director of Television and
General Manager, Station
KUON-TV, Lincoln

Dr. Martin Chamberlain, Dean
University Extension
University of California,
San Diego

Dr. Bernard Luskin, President
Coastline Community College,
Fountain Valley, California

Mr. Paul Steen
General Manager
Station KPBS-TV San Diego
San Diego State University

Project Staff

Thomas H. Gripp,
Project Coordinator (1978–79)
Dean, Telecourse Design
Coastline Community College

Kiki Munshi,
Project Coordinator (1979–80)
Research Coordinator (1978–79)
University Extension
University of California,
San Diego

Project Officer

Peter Dirr
Office of Educational Activities
Corporation for Public Broadcasting

CONTENTS

ABBREVIATIONS

AACJC American Association of Community and Junior Colleges
AAS Package Academic and Administrative Support Package
AASCU American Association of State Colleges and Universities
CAI Computer-Assisted Instruction
DCCCD Dallas County Community College District
CPB Corporation for Public Broadcasting
FTE Full-Time Equivalent
GED General Education Degree
IHETS Indiana Higher Education Telecommunications System
I-ITV Interactive Instructional Television System
ITFS Instructional Television Fixed Services
KET Kentucky Educational Television
NASULGC National Association of State Universities and Land-Grant Colleges
PBS Public Broadcasting Service
PSSC Public Service Satellite Consortium
PTV Public Television
QUBE An interactive cable system presently operated in Columbus, Ohio by the Warner Cable Co.
RSVP Response System with Variable Prescriptions
SCEPAL Station-College Executive Project in Adult Learning
UCSD University of California at San Diego
UMA University of Mid-America

I.
INTRODUCTION

It has become almost trite to point out that the population of the United States is aging, that there are growing numbers of part-time students at the post-secondary level, and that the need for continuing education intensifies as the pace of change in our society accelerates. Nevertheless, these things are true. Also true is the fact that traditional patterns of college attendance are not always appropriate for adults in a society that provides information freely to its inhabitants from many different sources but, at the same time, requires an increasing amount of certification for the acquisition of knowledge to be recognized.

The social response to these facts has been a growth in systems of Open Learning—an exciting and exhilarating, if slightly scary, field. Most simply defined, Open-Learning systems are nontraditional systems of education that attempt to reach new students in new ways and without many of the requirements that have heretofore characterized higher education. Participation in an Open-Learning system is not limited by age or previous education and Open-Learning systems include a wide variety of programs that diverge to a greater or lesser extent from traditional education models. Many are assisted by the use of recently developed technologies for communication and information dissemination.

Telecourses—courses delivered in part by broadcast television or other forms of telecommunication—are an example of the use of technology in an Open-Learning system. The content of the materials delivered to students through telecourses often parallels that of on-campus courses, but the use of a nontraditional delivery system has wrought changes in the ways in which that content is presented, the types of students who now have access to it, and the organizations that prepare and deliver it.

The increasing use of telecourses by colleges and universities across the United States has also created a new set of relationships between public television stations and institutions of post-secondary education. By and large these relationships have been mutually beneficial but, as with the introduction of any novel system, a need exists in some areas to clarify roles and provide information to new participants on both sides. This need was behind the Corporation for Public Broadcasting's decision to fund the Station-College Executive Project in Adult Learning (SCEPAL) in 1978.

College level credit courses are only one aspect of the many possible uses of television in post-secondary formal and nonformal education but they provide an excellent starting point for wider exploration. Telecourses can be clearly identified. They have an institutional base in both colleges and stations, and there is a well-defined relationship between the "user"—the learner—of telecourses and the institutions that are responsible for them. Because of this base and that consequent relationship, a certain amount of data exists on telecourses, although before this project much of it had neither been assembled nor examined critically.

These considerations formed a context and a rationale for the specific goal of the SCEPAL project: "... to aid station executives and college/university administrators to make effective decisions about the use and implementation of television courses" (SCEPAL, 1978). To achieve this goal, the project contracted to develop materials and to conduct a number of regional Executive Development Seminars for teams from educational institutions and local public television stations during the summer of 1979. The materials would then be revised and incorporated in a "stand-alone" package that could be used by other interested individuals and organizations. Preparatory to developing materials for the seminars, the project was to review the existing literature about telecourses and, synthesizing it with interviews, to prepare a narrative document outlining the current state of the art. This paper is that document. It is based on a review of existing literature about telecourses and interviews with over fifty individuals at twelve television stations, twenty-two two- and four-year colleges and universities, and a number of other organizations including publishers and commercial producers of educational materials for television. (A list of persons interviewed together with a longer description of the data base is included in Appendix A; most documents reviewed are included in the bibliography.) For most of the interviews, a structured interview was used. Copies of the interview forms are also found in Appendix A.

This document is one of several products prepared for SCEPAL Executive Development Seminars. Other

Seminar materials include an Executive Summary of the document, a workshop guidebook, and a booklet on the administration of telecourses. In a second phase of the project (1979–80) the entire set of documents will be distributed to all public television licensees in the United States and to participants in a series of seminars offered in conjunction with the Public Telecommunications Institute of the National Association of Educational Broadcasters.

II.
TELECOURSES: DEFINITION AND SCOPE

- "Telecourse" is defined as "an integrated learning system that employs television and various print materials . . . specifically designed to involve a variety of learning strategies to forge a complete education unit available to the student in the convenience of his own home."
- In telecourses, the television programs are usually supported by a print package which contains three components: (1) textbook, (2) study guide, (3) book of readings.
- Telecourses have been categorized as "courses *for* television" and "courses *from* television" (or "wrap-around" courses).

College credit courses using television have existed for many years; "telecourses" have not. Traditional television courses have presented a lecturer, supported by a blackboard, artifacts and, perhaps, slides. The teachers on such "television courses" essentially brought their classroom to the television studio. They delivered a talk and supported it, by and large, with reading assignments in their favorite texts.

A telecourse, on the other hand, uses television in a different way and for different purposes. The television component is intended to take the student out of, rather than in to, the classroom, and the support materials play an enhanced role. More specifically, a telecourse is

> . . . an integrated learning system that employs television and various print materials. This system is specifically designed to involve a variety of learning strategies to forge a complete education unit available to the student in the convenience of his own home. (It) is not a correspondence course with pictures, nor is it a televised lecture with supplementary readings. It is an examination and presentation of a body of knowledge and information through the use of sight, sound, color, movement, and print in a manner designed to stimulate, motivate, clarify, and quantify. A telecourse is designed to take maximum advantage of the strengths of each component to lead the student through a "success-oriented" experience. (Gripp, 1977)

The emergence of telecourses is a natural outgrowth of increasing sophistication in the use of television and in instructional design. Their origins came at two points in the early 1970s: with the design of *As Man Behaves* at Coast Community College District and *Man and His Environment* at Miami-Dade Community College District in 1972; and with the first broadcast of *The Ascent of Man* in 1974. These developments changed the face of instructional television at the post-secondary level.

> Once video techniques in ITV courses had been refined and brought up to commercial standards, and once it became evident that audiences were both entertained and instructed by "Civilization" and the "Ascent of Man," the total design of the course presented on television was systematized. With the disappearance, or the reduced visibility, of a teacher who is firmly in charge, the essential functions of summarizing, synthesizing, and prescribing for the student were transferred to packages of supportive materials. (Zigerell, 1979)

Technically speaking, such courses can either be broadcast or delivered through closed circuit/non-broadcast systems. For the purposes of this project, however, we have confined ourselves primarily to a consideration of broadcast courses for college credit. We also made a decision to deal only with courses that have been used by more than one institution.

TELECOURSE COMPONENTS

The television programs are, for a student, the focal point of the telecourse. Ideally, they use the medium to its fullest capacity, providing illustrations of processes and places, engaging a student's attention, and speaking to the affective domain. Educationally, there are few reasons to standardize the numbers and lengths of such programs, but because of administrative and financial considerations[1] they tend to be about fifteen

[1] Some states require a minimum number of hours of televised instructions for FTE or ADA calculation. stations find it easier to program for definite times each week over a period rather than at odd intervals

hours in total length, either in a format of thirty programs, each thirty minutes long, or in a thirteen- to fifteen-unit series of one-hour programs.

The television program is supported, for the student, by a print package (see Table 1). This contains two and sometimes three elements:

Text

In most telecourses the text has been an existing book, either adapted from a trade book created to accompany a television series or existing independently of the programs.

Study Guide

The study guide is a key element for the student and performs many of the functions normally assigned to a classroom teacher. It provides the student with instructional or specific learning objectives for the course and for each unit. It describes the assignments for each unit. It includes self-study questions so the student can assess his or her mastery of the material. It may also contain such features as a narrative section for each unit that integrates the television and text and/or adds to them, summaries of the programs, a glossary, or other learning aids.

Readings

Some, but not all, courses include a book of readings to present alternative views to that of the text author, to extend certain concepts, and to provide the student with a range of intellectual exploration not available in the other, more closely integrated components of a course. Its existence is predicated on the assumption that although it may be difficult for the home-based television student to visit a library, that student should not be denied the kinds of resources available to an on-campus student.

Taken together, these elements can provide the student access to a successful learning experience without his or her having any contact with an educational institution. Because of this interested viewers could, theoretically, purchase a package of books, follow the assignments, and watch the television programs in order to learn about a subject without registering, paying fees, or taking examinations. In practice, although this does happen (we think, for we have no certain measures), it is probably on a very small scale.

Needed Research: *Telecourses are a learning system that is easily available to a wide audience. How many nonenrolled viewers purchase books, follow the assignments, and watch the programs? If very few, why not more? Will answers to these questions give us insights into motivation for going to college?*

An institution that offers a telecourse is usually (again, not always) the recipient of additional, nonbroadcast materials for its own use. A typical support package (often called an Academic and Administrative Support or AAS Package) contains procedures for implementing telecourses, suggestions for faculty roles and for teaching strategies, test banks and publicity/promotional materials with suggestions for student recruitment. (Excerpts from such a package are included in Appendix C.)

Combining the resources of this Academic and Administrative Support Package with the expertise of its staff and faculty, an institution offers a telecourse to its own students, using its own credit, charging its own fee, and determining its own requirements for completion. Local adaptations have enabled user institutions to take advantage of nationally produced resources without the necessity of conforming to a single national standard of performance or approach to education.

TYPES OF TELECOURSES

The courses with which we shall deal can be defined by their audience (cf. Section IV) but may also be approached through another set of criteria: whether the programs have been explicitly created for instruction.

We have labeled telecourses in which programs have been made for instruction "courses *for* television." These telecourses have a wide range in production quality, are normally tied to "standard" subjects (e.g., English I, American Government, Biology) and are usually syndicated. This means that the user institution arranges for their purchase, rental, or lease, and broad-

Table 1. Telecourse Materials

User	Material	Where/How Acquired
Institution	Programs	Leased/purchased *or* used in wrap-around fashion when broadcast by PBS/local station
	Academic and Administrative Support Package/ Administrator's Guide	Purchased/received from telecourse developers
Students:	Programs	Received on home television set
	Text Study Guide (Readings)	Purchased from bookstore or received from local institution upon registration
	(Additional materials from local institution)	

cast time. There are, at present, a large number of institutions producing telecourses for use in the United States, including colleges in collaboration with television stations and private enterprise.

Courses *from* television or "wrap-around" telecourses are those in which the programs have been produced for general audience viewing but whose content and academic quality also render them suitable for educational use. In courses such as these—*The Ascent of Man, The Shakespeare Plays,* and *Roots*—programs are aired nationally by the Public Broadcasting Service or a commercial network. Users of the telecourse, therefore, are not responsible for arranging the broadcast, but neither do they have a great deal of control over the time that it will be available.

Generally, wrap-around courses are aired in "prime-time" (between eight and eleven on a week day evening) and courses *for* television in "fringe-time" (early morning, late afternoon, late evening, and weekends)

Other differences between the two, as well as distinctions among other kinds of telecourses, will emerge in later sections of the paper.

III.
TELECOURSES: THE INSTITUTIONAL ENVIRONMENT

- Colleges/universities have offered telecourses through a variety of administrative structures: as part of the regular college curriculum, as part of an Evening College or Continuing Education division, and on a noncredit basis.
- More than 1800 of the nation's 2993 colleges and universities use broadcast and nonbroadcast television for instruction. In 1978–79, 735 colleges/universities offered more than 2300 courses over television, enrolling 500,000 students in those courses.
- Most (89%) public television stations report that they broadcast series suitable for credit and/or noncredit courses.

Telecourses are handled in a variety of ways by the colleges that offer them. With some exceptions, they are most likely to be a part of a regular educational program in community and junior colleges, and to be located in a Continuing Education or Extension division in four-year institutions. The following list illustrates the range of importance telecourses can hold for different organizations.

1. *Telecourses as part of a "College Without Walls" or an Open-Learning Division.* In this model telecourses constitute an important, if sometimes small, part of the regular curriculum and are administered by the division or college rather than an academic department. They are treated, in terms of the student's record and transferability, like other courses. Students can be enrolled either part or full time (e.g., Coastline Community College, Miami-Dade Community College).

2. *Telecourses offered as a part of the regular college curriculum.* Here, as above, telecourses are like other courses as far as student records and transferability are concerned, but they are most likely to be (a) administered by a district-wide office and offered through individual college departments (e.g., Dallas County Community College District, TV College in the San Diego Community College District) or (b) a minor alternative part of the college curriculum with each one administered through the appropriate academic department (e.g., Jackson State University, Elizabethtown Community College).

3. *Telecourses as part of an Evening College or Continuing Education division and offered for regular college credit.* The operative milieu is no longer that of the whole college, but that of a section; within the section telecourses may constitute a more or less important part. Students are more often part-time. The courses are for regular credit and may be applied toward a degree but may not always be accepted as departmental requirements (e.g., Eastern Kentucky University).

4. *Telecourses as part of an Extension or Continuing Education division and offered for Extension or Continuing Education credit.* In this case, the credit is probably not transferable to a regular degree program within that institution, but may be applicable in other areas such as obtaining certain types of teaching credentials or advancement within a professional situation (e.g., Seattle Pacific University, University of California at San Diego).

5. *Telecourses as a part of a Continuing Education or Extension division for noncredit.* This does not occur with great frequency because it decreases student incentive to enroll. When it does occur, it is most often with self-improvement or skills classes such as freehand sketching or home gardening.

A television station normally treats a telecourse in one of two ways, and the difference in treatment is limited to a small area of operations—that of adoption. In either mode, the amount of time and attention given the educational aspect of the station's obligations depends on the individual station rather than the type of program. The technical aspects usually do not vary. (1) In the *Telecourse as telecourse* mode, the telecourse programs are viewed as components of an educational system. Aesthetic quality is important but may be sacrificed to educational merit (courses *for*

television). (2) *Telecourse as other* consists of series that would be aired regardless of local educational interest (wrap-around courses).

Kenneth Boulding's concept of "image" (Boulding, 1956) is useful in conceptualizing the differing roles of telecourses within educational institutions and television stations. The "psychic space" they occupy in the world of an administrator or faculty member will determine the amount of time, attention, and, ultimately, resources they are given. Divergent mental images of the telecourse may be a source of friction among individuals in different roles unless the discrepancy is recognized and acknowledged.

Generally, the initiation of a telecourse requires considerable effort from at least one individual in an educational institution. Telecourses are a deviation from a normal pattern. Usually their use must be approved by various committees. A natural outcome is that there is normally at least one person in a college for whom telecourses have a magnified image or importance because he or she has been their advocate.

The image of telecourses in the world of the television station, on the other hand, is generally reduced. Broadcasting telecourse programs is not a "venture" for a station in the sense that offering a telecourse is for many educational institutions. Moreover, stations perceive themselves as serving a variety of community needs of which education is but one, and in almost all cases the individual responsible for education at a station gives more attention to Kindergarten through Grade 12 than he or she gives to post-secondary education.

We do not know exact numbers of colleges and universities offering telecourses or educational programs using telecommunications, but a number of studies have begun to provide some answers. One, conducted by the American Association of Community and Junior Colleges (AACJC) and the Corporation for Public Broadcasting (CPB), has found that 74 percent of responding two-year institutions in the United States use television in some education-related function. Of that 74 percent, 48 percent use television for off-campus instruction (Dirr, Kressel, and Pedone, 1979). In another study (Howard and Froke, 1979), the National Association of State Universities and Land-Grant Colleges (NASULGC) found that almost all its members (95 percent) and those of the American Association of State Colleges and Universities (AASCU) (92.7 percent) "provided telecommunication facilities for instructional media services for faculty and staff." Most of the institutions also used their telecommunication facilities to provide some instruction for the adult public—86.8 percent of NASULGC members and 83.5 percent of AASCU members. A fair number "indicated that the instruction is used as part of an open learning and/or external degree program offered by the institution" (NASULGC: 33.9 percent; AASCU: 22.6 percent). The report went on to say that "instructional materials, including televised courses that are produced by outside agencies or institutions, were reported to be widely used by the members of both institutions" (NASULGC: 86.8 percent; AASCU: 83.3 percent). In another approach, major college telecourse distributors estimate they have reached 600 educational institutions and Media Five, a commercial organization in Los Angeles, sells continuing education courses for teachers to over 100 colleges. In a study nearing completion as this report is being published, the Corporation for Public Broadcasting and the National Center for Education Statistics found that 1824 of the nation's 2993 colleges and universities used television for instruction in 1978–79 and 735 colleges and universities offered more than 2300 courses over television in that year, generating approximately ½ million enrollments (Dirr and Pedone, 1979). These figures, however, include on-campus as well as off-campus use of television.

A Corporation for Public Broadcasting (CPB) survey (CPB, 1978) of PBS licensees in the base year 1975–76 found that of the 156 stations responding (total licensees = 158), 56 percent carried in-service courses, 70.5 percent carried post-secondary formal courses, and 80.1 percent carried post-secondary informal courses.[2] Additionally, many commercial stations carry telecourses. In the past the CBS Network has estimated that 80–85 percent of its affiliates carried *Sunrise Semester*, but we have not been able to determine whether there is similar data for current programming.

> Needed Research. *How many stations carry what kinds of educational programs? Are there correlations between station characteristics and educational programming?*

The support of top administrators is important for the success of telecourses in both stations and colleges. The nature of this support, who gives it, and the degree of actual involvement, however, may vary.

The consensus of our respondents was that key administrators were as follows: Presidents of two-year colleges and smaller four-year colleges; the Academic Dean of large four-year institutions in which telecourses were a part of the regular curriculum; the Dean of Continuing Education or Extension divisions of large four-year institutions that placed telecourses in those areas, the general manager or director of pro-

2 There may be some overlap among these categories

gramming of television stations. Clear lines were not drawn about the conditions that governed the latter. In stations and colleges, top administrators were more apt to be directly involved with telecourses if the institutions were small.

In each institution, the key administrator normally had a common set of concerns. We compiled the following list for college presidents; many of the questions could easily be adapted to fit the needs of station managers.

IF I WERE A COLLEGE PRESIDENT . . . WHAT WOULD I WANT TO KNOW ABOUT TELECOURSES?

1. Why should my college bother with telecourses?
They can reach out to a new type of student. They will provide new means of access to Anon U. from the community. They may provide you with a means to enhance and extend your image in the community. They can enhance and enrich existing curriculum.

2. Will telecourses constitute a financial or administrative drain on my institution?
Anything new or different is demanding, but telecourse operations *can* be affordable. Telecourses should pay their own costs or provide added income if your telecourse operations people are aware of various types of costs and if they take the trouble to learn and arrange for administration.

3. Will telecourses lower the quality/hurt the image of the kind of education currently available at my college or university?
Like any other kind of educational material, there are good and bad telecourses. Most of those based on nationally disseminated PBS series are created by major universities who seek the assistance of outstanding academics in the area. Similarly, many of the well-produced telecourses now available have been reviewed by academics and instructional designers *and* feature interviews and commentary with leading individuals in a particular field. The key is the quality of instruction a telecourse permits. With the same care and screening a faculty member gives to text and book choices, telecourses can be fitted into the existing quality of education at your college or university and might even enhance it.

4. Will telecourses cause me problems from faculty groups?
Not if they understand their use. Telecourses have not, to date, lowered enrollment in on-campus classes and your faculty *should* have a say about telecourse quality and selection. Most importantly, your faculty needs to understand that in telecourses television is not meant to replace the instructor. It is used to enhance his or her role—and ways an instructor uses telecourse materials can be tailored to the needs and requirements of your institution.

5. How can I support telecourse use and what demands might be made of me?
Your continued interest in telecourses and their use at Anon U. will provide most of the support you need to give. Otherwise, your greatest role may be in representing your institution with outside agencies vis-à-vis telecourses. You may, for instance, wish to represent your institution's needs as your state legislature considers the status of off-campus or nontraditional education for funding. You may wish to meet with the manager of your local PTV station occasionally, and you may be asked to represent your institution in national groups concerned with telecourses.

IV.
TELECOURSES: THE AUDIENCE

- Telecourses can be categorized according to the needs of their primary audiences: (1) Continuing Professional Education courses, (2) General Interest courses, (3) Core Requirement courses, (4) Other courses.

- Telecourse enrollees tend to be older, female, and more wealthy than the average on-campus college student.

- Little is known about those who view the telecourse programs but do not enroll in the telecourse.

- Most institutions choose telecourses based on what is available, how they relate to core degree requirements, and probable number of persons who might be interested in a specific course area. Student telecourse interests were found to correlate closely with career interests and degree requirements.

- Appeal of a telecourse can be affected by five factors: (1) relationship to the students' vocational advancement; (2) relationship to degree requirements; (3) whether it features a well-known individual; (4) whether it costs the student less than or the same as other courses; (5) whether it offers the student greater convenience than other courses.

The striking fact about the "telecourse audience" is that it is not one; it is many. The student in a Bible studies class in Hattiesburg, Mississippi, the nurse taking a course in the use of a child abuse assessment scale in Denver, and the part-time undergraduate enrolled in American History I in Texas illustrate some of the many ways telecourses are used in the educational world.

During the course of this project two possible approaches to these audiences emerged. The first was by category or type of telecourse. The second was by type of institution. In this section we deal with both approaches even though they are, essentially, simply two different ways of dividing the same audiences. Our reason for doing so is because the first seems to raise the most interesting questions, but our data is primarily for the second.

TELECOURSE AUDIENCES BY TYPE OF TELECOURSE

We have identified four categories of telecourses, each of which seems to be tied to a different audience profile. These are (1) Continuing Professional Education, (2) General Interest, (3) Core Requirement Courses, and (4) (somewhat anomalous) Other. Categories 2 and 3 overlap to a degree but they present real differences to broadcast stations and, we feel, probably will require a substantially different type of audience assessment. There is no discrete category for upper division courses because the incidence of those types of telecourses has, at least until the present, been low. Lower division electives are included in the General Interest category.

1. *Continuing Professional Education.* These courses are directed at practicing professionals. These include doctors, nurses, lawyers, engineers, and teachers, among others. Such courses could also provide skills training for employed nonprofessionals (secretaries, assembly line workers, etc.), but we have found little indication that this occurs with the use of broadcast television.[3]

This project has no demographic data on professionals enrolled in telecourses or enrolled in courses with a telecommunications component. It is possible, however, to pose some probable characteristics of such an au-

3 The University of Southern California offers some secretarial skills courses over their ITFS system, and a number of industries offer in-service training with video components. Some proprietary schools also use closed circuit or in-house video systems.

dience, drawing them from current knowledge about members of various professions.

These would be: Professionals enrolled in further education are generally highly motivated (by a need for the knowledge offered in the course or for the certification contingent upon successful completion) and are accustomed to studying in a post-secondary environment by virtue of their professional training. With rare exceptions they would be older than an average undergraduate student. They are often employed and, if employed, in middle to higher income brackets. Sex ratios are probably proportionate to those of their profession.

Needed Research. *What are the characteristics of individuals enrolled in continuing professional education courses, and do they have any relationship to advancement within the fields? Would the knowledge of this relationship aid in equalizing participation in a profession on the basis of sex and ethnic background?*

Each professional group comprises a discrete audience. This audience is numerically limited, easily identifiable, and individual protestations to the contrary, probably able to pay for continuing education. The subjects/programs in which they would be interested are unlikely to have broad appeal for the general public and, therefore, the prevailing practice of using nonbroadcast systems for the delivery of continuing professional education will probably continue. A general description of such systems appears in Section XII.

Teachers are sometimes exceptions to this profile. Many of the courses they take are specific to their profession, but they also enroll in general interest courses in order to maintain certification or to progress on a salary scale.

2. *General Interest Courses.* We have defined general interest courses as those in which the television programs appeal to a much wider audience than the enrolled student population. This is not to argue that there are no casual viewers for other telecourses. There are, but no one knows how many unless they show up on the Nielsens or on Arbitron ratings (or are the subject of special and expensive surveys), and the programs for core requirement courses do not generally do so. The programs in this category often do.

These courses include both courses made *from* television (wrap-around courses) and courses made *for* television. The wrap-around courses, as we noted earlier, are based on a major series, are the recipients of extensive publicity efforts, and are aired in prime time. Their viewership in the first airing is many multiples (up to 250) of the number of enrolled students. The courses *for* television that attract such relatively large audiences, according to our informants, have been in self-improvement or "how-to" areas. *Designing Home Interiors* and *The Consumer Experience* are two of these.

General interest courses often—usually—carry credit but do not usually carry core requirement credit. We hypothesize, therefore, that an individual's interest in a subject is a determining factor in enrollment in this type of telecourse and that demographic characteristics will probably reflect the types of interest each course represents rather than a more general "telecourse norm." This is, of course, only a hypothesis, but it bears on an important question of audience identification.

Needed Research: *Is the "telecourse audience" defined largely by the medium or by credit requirements/noncredit requirements and/or interest? Is all or any section of this audience a finite pool with a proportionately small amount of change in overall numbers each year or is it renewed each year in the manner of an undergraduate student population?*

3. *Core Requirement Courses.* These are courses *for* television on subjects required for the completion of a degree (usually an AA) or for the completion of lower division requirements. These courses are the basic building blocks of a general education—American history, psychology, astronomy, and so on—and attract relatively large student audiences (up to several hundred per college per showing), particularly in junior and community colleges. They do not normally attract very large general audiences and are usually shown in fringe-time, although a number of telecourse producers hope that with continually improved programs, they will move out of this time "ghetto."

4. *Other.* This group includes noncredit courses composed of any of the above, G.E.D., or similar basic secondary-school-level skills courses, upper division courses attracting small or specialized audiences, and short workshops. One respondent at an educational institution indicated that he wished to experiment with noncredit television courses, but in no others was there any mention of their use, nor was there mention of credit courses that were offered successfully for noncredit as well. A typical response was "If we don't offer credit, why should the student pay us for the course?" Given the widespread availability of the television programs and the fact that books for a course are normally accessible to interested individuals, this makes sense. If pay cable systems such as QUBE (cf. Section XIII) become more widespread or if courses are transferred to videodiscs, a means of generating revenue for offering institutions to offset their costs may also be developed. Until that time, noncredit television courses will probably remain a very minor part of the whole from the point of view of the educational institution. The stations may be in a different position since their

concern is with total viewership rather than paying viewership.[4]

Although many station respondents expressed a belief that there was a sizable viewership above and beyond the students enrolled for credit in courses *for* television, we were able to find hard data from only one survey. The most pertinent was conducted by the University of Mid-America (Selection Research, 1978) and covered St. Louis, Missouri, South Dakota, and Iowa. In these areas one person in five had watched at least one telecourse program the previous year and remembered that fact.[5] The responding population was more heavily female, was older, and had less education than the average in the telecourse-for-credit audience.

> Needed Research: *What is the size of the noncredit viewing audience for various kinds of telecourses? What do the figures indicate about the noncredit appeal of various types of telecourse productions? How high do these figures need to be for this kind of program to represent an attractive viewership to a public television station?*

The GED series by Kentucky are being used successfully in a number of areas but data on total enrollments are not readily available. TV is also being used as a basis for professional workshops but, again, we have no date on extent of use.[6]

TELECOURSE AUDIENCES BY INSTITUTION

The greatest amount of audience data that we do have is for general interest courses and core credit courses and can best be broken down by institution. This breakdown serves two purposes: it reflects the differing perception of audiences by each type of organization and it seems to indicate some differences between two- and four-year institutions and among types of programs.

The twelve television stations interviewed—both the PTV stations and the one commercial station—either had no demographic data on enrolled telecourse viewers or had received that data through colleges. One of the station respondents (KOCE-TV, Huntington Beach, CA) believed that the audience that watched telecourses was basically the same watching other PBS programs. Other station respondents felt that the telecourse audience they were trying to attract was significantly different from their regular audience. The PTV personnel generally saw their regular audiences as upper-middle class, well educated, and containing a preponderance of women. They drew a large number of children (because of *Sesame Street* and the *Electric Company*), skipped the teen-age group, and moved into a slightly older adult population.

Among the educational institutions, the most complete data were from those colleges that were also major telecourse producers. By and large, the junior and community colleges presented an audience that fit the "typical" telecourse profile. The description by the Dallas Community College District in its *ITV Close-Up: The First Six Years* is representative: telecourse students are about 30 years of age on the average with more than three-fourths employed full or part-time, a majority of whom are in white-collar occupations or are housewives. Overall, the sex distribution is about 60 percent female and 40 percent male, but this varies from course to course. The majority have family incomes over $15,000; more than 85 percent are high school graduates and over 50 percent have some college.[7]

Dallas also noted that over time the age distribution of their students has become bi-modal, peaking around twenty and again around thirty-one. In other words, more members of the traditional student-age population are taking telecourses. Both Miami-Dade and Tarrant County noted similar trends and added that the younger students, in general, performed more poorly in television courses than older students.

Over time a more even sex ratio in telecourses has been reported from a number of geographical areas. It is entirely possible that this is a result of a change in the subject areas of telecourses offered but we have not been able to examine this in detail.

Two other phenomena, reported at a number of junior colleges, call into question the assertion, held by most respondents (see Section XI), that telecourses appeal to a "new student" who would not otherwise have access to education. First, many telecourse students (up to 70 percent) in junior and community college telecourse programs are also enrolled in other, on-campus classes; second, the characteristics of the "part-time" and "evening college"—or even of the general

---

4 The NASULGC and CPB surveys mentioned earlier (Howard & Froke, 1979, Dirr, 1978) found that most stations and, unlike our data, many educational institutions (NASULGC, 45.5%, AASCU, 26.2%) offered "noncredit courses." The CPB responses included series such as *NOVA* and *Wall Street Week*, the NASULGC survey did not define "noncredit course." We have, therefore, not treated them as telecourses.

5 The courses in the survey included, in addition to the more traditional telecourse, three - *Age of Uncertainty*, *Classic Theatre*, *The Humanities in Drama*, and *Perspectives on Effective Parenting*--that were "wrap-around" and aired, presumably, in prime time.

6 In some cases college/extension divisions have offered upper division or graduate credit for "wrap-around" courses. We have no data on possible differences among audiences for these, and we have very little data regarding their use.

7 It is interesting to note that this fits a general PBS audience profile in spite of strong feelings that the two audiences differ *and* some data to support those feelings. This is a large country, however, and the apparent conflict may be a result of the limitations of descriptive statistics.

college—populations at several institutions do not differ significantly from those of the telecourse students. Characteristics do differ from the traditional on-campus student population in that on-campus students are younger, more apt to be attending school full-time (although both these are changing), and more apt to be male for both two- and four-year institutions.

With two exceptions (Dallas and Kingsborough), the community colleges used both courses *for* television and wrap-around courses. Audience characteristics were not available from enough institutions on a course-by-course basis to try to test some of the hypotheses presented earlier concerning possible differences between students in each type of telecourse.

With the exception of the University of Mid-America, extensive data on demographic characteristics of telecourse audiences was not available from any of the four-year institutions surveyed. Generally, impressionistic responses from individuals point to a slightly older, slightly more heavily female, slightly higher income bracket student if we control for the few cases in which regular undergraduates were allowed/encouraged to enroll. With one exception, telecourses were offered by Continuing Education or Extension divisions and, again with one exception but not the same one, these divisions reported that telecourse student characteristics were "probably" about the same as those of other Extension or Continuing Education students. In general, however, data was sparse and uncertain.

Four-year colleges and universities tended to offer *only* the wrap-around courses unless the fees for purchase/lease and broadcast time of the courses for television were underwritten through state aid or a consortial arrangement. Among those institutions that we surveyed there was one exception to this pattern—Seattle Pacific University—whose offerings were primarily continuing professional education courses for teachers. These courses fulfilled state mandated requirements.

Where data on ethnic origins of students existed, black and Chicano students were either underrepresented in telecourses or present in numbers proportionate to their numbers in the general population.

This profile does not seem to be very different from the profile of adults engaged in non-media-based educational activities. Adults participating in instructional activities in Illinois (*Study of Adult Learners*, Sept. 26, 1978) were "younger, employed and affluent, in terms of family income and education levels. On the other hand, nonparticipants tend to be either older, less educated, unemployed, have lower incomes or some combination thereof." The Illinois profile, according to this report, paralleled findings in most such surveys. Since these reports pertained to the entire population, "younger" falls into the about-thirty telecourse age we have elsewhere characterized as "older" and this description may also be applicable to the average telecourse student.

CHOOSING TELECOURSES

To date the subjects offered through telecourses by educational institutions have been limited by the availability of existing instructional packages. In this section we shall briefly review how colleges and universities select the subjects they choose to offer, relate this process to their selection of telecourses, explore factors that make telecourses appealing to students and viewers, and outline the process by which decisions to produce telecourses have been made.

In the institutions surveyed, two general types of courses and criteria for selecting them emerged. The first was courses that were core credit requirements. These courses were determined by the institution for on-campus classes; telecourses needed to approximate the on-campus course in subject matter covered, length, and level of difficulty. The second was general interest courses offered, for the most part, in Extension divisions and evening colleges.

Regular noncredit, or noncore Extension courses seemed to be selected through a combination of intuition and factual information; the responsible individual normally read widely in his or her field, watched trends, noted past enrollments, and made informed guesses. For competent individuals this seemed to be a highly successful method of selecting courses. In this situation, numbers of potential students were often a prime criterion and courses that did not enroll enough students to cover expenses were likely to be dropped. Other reasons for offering a course included providing breadth to the institutional program, fulfilling either informal or explicit requirements, and taking advantage of available resources. The same basic criteria were purportedly used to determine which noncore credit telecourses were generally adopted or not adopted.

The most popular nontelevision areas of study for Continuing Education or Extension divisions of four-year institutions centered around business and the professions. The responses were remarkably consistent. "Business, Journalism, TV, Film, Social Sciences" (Temple). "Biggest enrollments in Education, Reading and Special Education; for undergraduates, Business" (Arizona State University). "Business, Education, Computer Science, Mass Communications, Criminal Justice" (Jackson State University). "Education, Nursing, Law Enforcement, some undergraduate courses" (Eastern Kentucky University). "Ninety percent are in Education, ten percent are in Nursing, Business" (Seattle Pacific University). Mary Walshok of UCSD expressed two aspects of course selection that

may pose problems for telecourses. "Business, management, Physical Education are popular but not every aspect of them. Tax courses, personnel, and investment are areas, for instance, that are now popular in business. Basic skills—writing, reading, math; career, life, and financial planning, probably sophisticated consumer courses, these go well, *but what is popular changes very rapidly* in Extension." An additional complication for telecourse adoption in these subjects is that many (real estate, for example) require modification of content from state to state.

The answers of our respondents from four-year institutions were consistent with data from other studies. A compilation of a number of surveys (Bruce Hamilton, "The popular approach to learning needs assessment, field surveys," ETS, 1976, cited in Lord, 1979) found that:

> In general adult women say they *want* to learn more about home and family subjects and skills, personal development, and public affairs Men express interest in technical crafts, personal development, hobbies, and vocational subjects But when asked what they *need* to learn, these same persons choose professional fields and vocational skills first General education (liberal arts) subjects are a lower choice of either case.

The choice of noncredit or nonacademic courses in community colleges is subject to the same considerations. Some community college respondents, indeed, noted that students were turning toward career courses and away from liberal arts. For the most part, however, the courses that fill semester after semester at community colleges are those that are required for a degree, and telecourses are no exception. Community colleges indicated that telecourses that fit degree requirements were the most popular although the single telecourse that consistently secured the largest number of enrollments for both two- and four-year institutions was not a "core" degree requirement course. It was *The Ascent of Man*.

We identified a number of factors that might account for the appeal of a particular course or telecourse to students and polled institutions on them. These included the facts that: The telecourse contributed toward vocational advancement, was part of a degree requirement, offered an outstanding feature or a well-known individual as teacher, cost the student less than or the same as regular courses, was assisted by an institution's image.

A discussion of vocational appeal as a factor that enhanced telecourse enrollment was curtailed by the lack of courses. A number of respondents at both two- and four-year institutions indicated this would be important if courses were available. For some—those who are offering continuing professional courses in education, it was currently important. All respondents in four-year institutions occupied one of these two positions; some from two-year institutions, on the other hand, felt that vocationally-oriented telecourses would have little appeal to their student body. A 1976 survey of the use of television in both California two-year and four-year institutions of higher education, however, found that "considering only courses offered for *lower division* credit, the fields deriving greatest use of this mode of instruction were: Real Estate, Business, Art, and Home Economics" (California Postsecondary Education Commission, 1979).

The importance to students of a telecourse carrying credit toward a degree or a certification requirement was given a low rating by only two institutions. Both were four-year, had low telecourse enrollments, and labeled telecourses a "failure." This is clearly an important factor, for it indicates that as much as we would like to believe that Americans want education for enrichment, it looks as if enrichment alone may not be enough to carry major educational programs.

A majority of the respondents felt that the presence of an outstanding teacher or special aspect to a telecourse was not an important determinant in selection by students. The respondents who felt it could be or was important (5 of 17) were from areas that might be designated more sophisticated in terms of their general population—New York, Southern California Phoenix, and Seattle. Three of these were four-year and two were two-year institutions. The majority perception, however, may be at odds with the appeal generated by Bronowski in *The Ascent of Man*, especially when *Ascent* is compared with the performance of other well-publicized wrap-around courses featuring less charismatic "big-name" narrators.

Most of the respondents estimated that cost *was* an important factor to telecourse students and that increases in fees (which were either slightly lower or equivalent to nontelevision courses) would be likely to cut their enrollments. Costs will be discussed in some length in Section VI, but it might be interesting to note that student fees for a three-unit telecourse at the institutions where we conducted interviews ranged from nothing to $120.

A number of respondents believed that their institution's identity had a positive influence on telecourse enrollments, either because of identification with telecourses (such as Coastline) or a positive general image in the community. One (Temple) noted that its institutional identity and situation—in a ghetto area in Philadelphia—might very well hurt on-campus attendance and, by corollary, help telecourse enrollment.

One other factor was mentioned as important in the appeal of telecourses to students—convenience This was not included in the original list because we were

trying to identify items for this series that could be important in the identification and production of future telecourses. Three institutions, however, volunteered opinions that convenience played a major role in attracting students.

We asked the station respondents what steps, if any, would increase the viewing audience for telecourses. "More publicity" was a consistent response. Station respondents generally believed that the best way to provide more publicity was through existing college channels. Other responses included: more appropriate scheduling (1); building a program that carried over from one semester to another (1); and experimenting with shorter, mini-credit formats (2). When stations were specifically asked if "more interesting" programs would draw a larger viewership, the response was affirmative but tepid.

For comparison's sake, we asked station personnel about their most popular general audience programs. The responses varied widely, as did their means of ascertaining who viewed what. Many used commercial ratings, others did not. No particular pattern emerged among those who did and did not do extensive surveys. Our responses ranged from "Upstairs, Downstairs," to "Wall Street Week," to music and performance. Some included *The Adams Chronicles* or similar series in a longer list but this was the only mention of a telecourse.

A compilation of series drawing the highest ratings over the past few years did include *The Adams Chronicles*. Table 2 lists the ten most viewed public television series.

In similar compilations for special programs (as opposed to series), National Geographic Specials occupied four of the five top places. This is consistent with surveys by the Corporation for Public Broadcasting which have found that science and nature are the topics for programs on which people indicate the greatest preference.

So many variables contributed to the success of any given telecourse that we did not attempt to determine individual most-popular telecourses. (Material on telecourse enrollments and book sales for a number of major courses is included in Appendix D.) Similarly, a synthesis of data of "most requested but not available" telecourses was, after some consideration, placed beyond the purview of this project since (a) most institutions kept no such list, and (b) "available" also carries a qualitative judgment in that a telecourse may exist but not be considered suitable for use.

Decisions to produce telecourses follow different routes for the wrap-apound courses and courses *for* television but in the end, both fall back either on potential enrollments and/or outside funding as bottom-line considerations. In either case, the decision is wrought with complexity, not the least aspect of which is the number of organizations normally involved: one or more stations, one or more educational institutions, and one or more publishers.

Table 2. Top-Rated Public Television Programs*

Series Title	Nielsen Rating	Date of Rating
Nova	6.7	February 1977
The Adams Chronicles	5.6	March 1976
Masterpiece Theatre/ Upstairs Downstairs	5.1	March 1976
Masterpiece Theatre/ Lillie	5.1	March 1979
Nova	4.8	March 1978
Masterpiece Theatre/ Lillie	4.8	January 1979
Best of Families	4.8	October 1977
Nova	4.8	May 1978
Nova	4.6	January 1977
Evening with the Pops	4.6	July 1977

*From a periodic report, Office of Communications Research, Corporation for Public Broadcasting, May 1979.

In wrap-around courses the programs are produced for general audience viewing. An educational component may or may not be included in the initial plans.[8] The decision to make such a series is not based, however, on potential educational value or a place in a college curriculum; if such a series should meet educational needs (as perceived by the institutions that normally produce the educational components), it is a result of happy circumstance rather than planning. Further, it is not likely that producers of such series will rely to any extent on educational needs assessment for their initial decisions, because the measurable audience gain as a result of educational uses is minimal at best, and usually nonexistent.

To date, an educational institution, not the programs' producer, has usually created the print components in a wrap-around telecourse. The institution's decision, however, is not sufficient for action. Contractual arrangements with the owners of the series and with a book publisher (to produce materials and, perhaps, to provide "advance" money) must be completed before a telecourse for national distribution can come into being. Negotiating these has typically taken several months.

Courses produced *for* television are beginning to rely on systematic estimates of both the institutional and student markets. Producers survey required courses, existing telecourses, and conduct informal polls before making a decision to invest hundreds of thousands of dollars in a telecourse production. Recently some of

8 We are restricting the meaning of "educational" to formal education although it can be (and is) argued that many PBS programs are inherently educational

these producers have worked in collaborative arrangements with textbook publishers. A major best-selling text is identified in a subject area and used as the basis for a course, adding its credibility and the momentum of its sales to the telecourse and, in turn, being supported by additional marketing, promotion, and use.

User institutions did not generally conduct questionnaire surveys of potential telecourse student audiences. Although some have been done by stations there did not seem to be great potential for questionnaire use in the future. They are expensive and there is a widely recognized gap between expressed willingness to participate in educational activities and signing up. This gap seemed applicable to surveys of specific courses in some of the cases we reviewed: in other cases, respondents were so divided on the type of courses desired that no clear direction emerged. Our and others' experience in this area does not bode well for the future: "The fact is that nothing done to date can tell us how many adults of what general types have how much interest in what kind of learning that can be assisted by how much and what kind of media use" (Lord, 1979).

The question of needs assessment is a difficult one. In a classic "market" sense, students' needs are being supplied insofar as telecourses are responsive to enrollment figures. These "needs," on the other hand, are determined by a number of outside factors and may or may not be th se that are most important to the student in the long run. Nevertheless, given the massive rate of failure of needs-assessment attempts, a refinement of the existing means of determining which telecourses to produce may be the best we can hope for. This is not to say that needs assessment for developing new audiences is not necessary. It is simply to suggest that until we achieve more accurate results, it might best be tried in other, less expensive, areas of nontraditional and open-learning systems.

> Needed Research or Thought *Philosophical: Who best determines the needs of a population—the population themselves or those individuals who may be in a position to assess needs most effectively?*
> ***Practical:*** *How do we motivate students—or anyone else—to pursue a course of study he or she doesn't feel is needed?*
> ***Philosophical:*** *Should we attempt to do so?*

It is probably fair to say that stations seem to have been more sophisticated than the educational institutions in their attempts to determine the general needs of their telecourse audiences. Both commercial and public stations conduct ascertainment surveys at more or less regular intervals. Some of these have been highly creative. Although few of them provide clear directions for telecourses, most do indicate areas that could be addressed by a more broadly defined set of "educational programs."

FUTURE AUDIENCES

As noted above, the audience profile for telecourses follows that of the audience profile for individuals involved in most Open-Learning programs Similarly, it deviates from the "new student" these programs were originally thought to have reached Several respondents specifically noted the "new student" as a target for future telecourses. Others, however, have raised both the question of definition of "new student" for this purpose and the suitability of telecourse instruction for some of these learners. "If new students are defined as adults," writes Leslie Purdy (communication to the project, 1979) "with low access to higher education due to being housebound or fully employed, then telecourses provide a service. But if 'new students' are defined as 'high risk' students, then telecourses are the wrong route. Our experience, for instance, demonstrates that telecourses are difficult for people without college experience or who have trouble reading."

Most respondents to our question "Are there audiences or groups you feel you have not yet reached with telecourses and which you hope to serve in the future?" focused on smaller, more identifiable groups. Several individuals mentioned the need for upper division courses for people who wanted to continue beyond the A.A. Many others identified particular professional groups, often those with whom they had already had contact. These included bankers, dentists, law enforcement personnel, firemen, and nurses in addition to the general category, "professionals." Many respondents noted state-mandated education requirements for a number of the groups. Specific nonprofessional audiences included Spanish-speaking, prisoners, minorities, adult illiterates, and, mentioned by several, the elderly. There were no consistent, immediately identifiable differences between station and college responses on this topic.

The reasons, according to our respondents, these audiences had not been served to date revolved around their small size (their number may be great but they are small proportionate to the audiences normally commanded by open broadcast television), the cost of making programs/telecourses, and the lack of available air time. One knowledgeable individual also pointed out that telecourses require a long lead time—two to three years may elapse between the identification of a telecourse subject and the use of the finished material. Ned Glenn of Miami-Dade expanded some of these topics and provided additional problem areas

> 1. Courses specifically designed to attract and retain selective minorities can limit other enrollments, for example English for Native Spanish Speakers
> 2. Courses geared toward "developmental" skills are costly to produce and deliver and require intensive human follow-up to be successful, thus increasing the total cost of development and delivery

3. Noncredit courses cost as much as credit courses to produce and deliver through television-based instruction. Credit courses, however, generate fees and FTEs which can be calculated as income from State funds, while most noncredit courses are funded directly from student fees. Beyond the cost consideration is the whimsy of topical course emphasis.

Through all the responses the felt need to serve large numbers of students—to produce "popular" courses—was evident. Glenn qualified his responses with a point that raises some as yet unanswerable questions.

> . . . regarding telecourse "popularity" . . . the question of semantics enters into the discussion. If "popularity" is equated with marketing and is measured in terms of numbers of students, as is the case in broadcast television, that would establish one set of courses. If, however, "popularity" was intended to be a measure of satisfaction for people engaged in the course, another set of courses would emerge. While not wishing to split hairs, I do believe that a criteria beyond pure numbers must be applied to any telecourse consideration. I would suggest a consideration of special interest groups as well as "everyman." (Communication to SCEPAL Project, January 1979)

Beyond the identification of "new" audiences, and the creation of materials for them, other means of extending telecourse use exist. One is to augment the existing telecourse audience. Another is to bring existing materials to groups that are not now using them. Perhaps the most exciting but also the most difficult would be to alter our current forms of financing and administering television-based education so that non-credit viewing elicits support in the same way that credit viewing now does.

> Needed Research: *How do we assess the quality and quantity of noncredit telecourse viewing? What basis could we use to provide support for producer/transmitter institutions for noncredit viewing, and who would provide the support? How do we find out which kinds of audiences can best be served by what kinds of information/education.*

V.
TELECOURSE ADOPTION

- The telecourse adoption process is complex for stations and colleges.
- Stations do not technically "adopt" telecourses: they broadcast telecourse series. Colleges/universities "adopt" telecourses by deciding to offer them as part of their curriculum.
- For stations, the decision to broadcast telecourse series is based on an examination of the station's mission and goals, sources of funding, audience needs, quality of available telecourse series, demands on staff time, and "match" of telecourses with other series being aired.
- For colleges, the decision to offer telecourses is based on an examination of availability and quality of courseware, perceived needs, potential enrollments, and costs.
- For both stations and colleges, the decision to use a telecourse differs for courses *for* television and courses *from* television ("wrap-around" courses).
- The lack of adequate "lead time" (i.e. advance information and planning time) was often a problem for colleges, particularly in offering courses *from* television.

For both stations and colleges, the decision to use a telecourse differs depending on whether the course is a wrap-around for a nationally broadcast series, or is locally purchased and aired.

STATIONS

In point of fact, a station does not "adopt telecourses": Its decision to air wrap-around series is based on an array of factors of which educational potential is probably a minor consideration: courses *for* television are normally chosen by the educational institutions. If the station participates in the latter process, it is most likely to be a senatorial "advise and consent" role. Figure 1 is a possible flow chart for these processes.

When a station chooses to air a series upon which a telecourse is based (such as *The Ascent of Man* or *The Shakespeare Plays*), its general considerations, as with any program, are likely to revolve around its audience. Its perception of "audience" and how it should be served is linked to the philosophy of the station. To some—often community licensees that depend in large part on memberships for funding—audience size is extremely important. To others, the ability to meet the needs of a particular group overrides the importance of numbers. Beyond this (but inevitably related to it) the quality of a program as measured in production values and technical requirements is important, maintaining a balance in programming among several different programming categories is important and, of course, cost or its absence is important.

If a station decides to give more time and energy to post-secondary education than simply to air wrap-around courses, a set of decisions follows. These are:

- How much time shall we allot telecourses each week?
- What times?
- Will there be charges? If so, what and how much?
  - Air time?
  - Flat per-head student fee?
  - Percentage of enrollment fee?
  - Videotape costs?
- Who will be responsible for handling this area? What percentage of time?
  - Programmer?
  - ITV person?
  - No one in particular?
  - Other?
- Will we participate in the selection of telecourses beyond requiring minimum standards of technical quality?

Additionally, the following questions may, but do not always, arise:

- Who will provide publicity? How much and what kind? How will we decide where what responsibilities lie?
- Will we join/form a consortium of colleges?
- Will we provide other services (e.g., tape duplication, production) for post-secondary education? Will we charge for them? And if so, how much?
- What kind of lead time do we and the colleges need for each telecourse? What would be a mutually satisfactory timeline for the group?

COLLEGES

In the colleges there are actually two adoption procedures for telecourses. The first is the initial decision to offer this form of instruction; the second is the decision to offer a particular telecourse.

Somebody once said that decision making was an amorphous series of events, not a conscious act occurring at a specific point in time. This may be true of most decisions in educational institutions; it certainly seems to be true of the decision to offer a college's first telecourse. Few respondents were able to identify a point at which *the* decision was made. Like Topsy, tele-

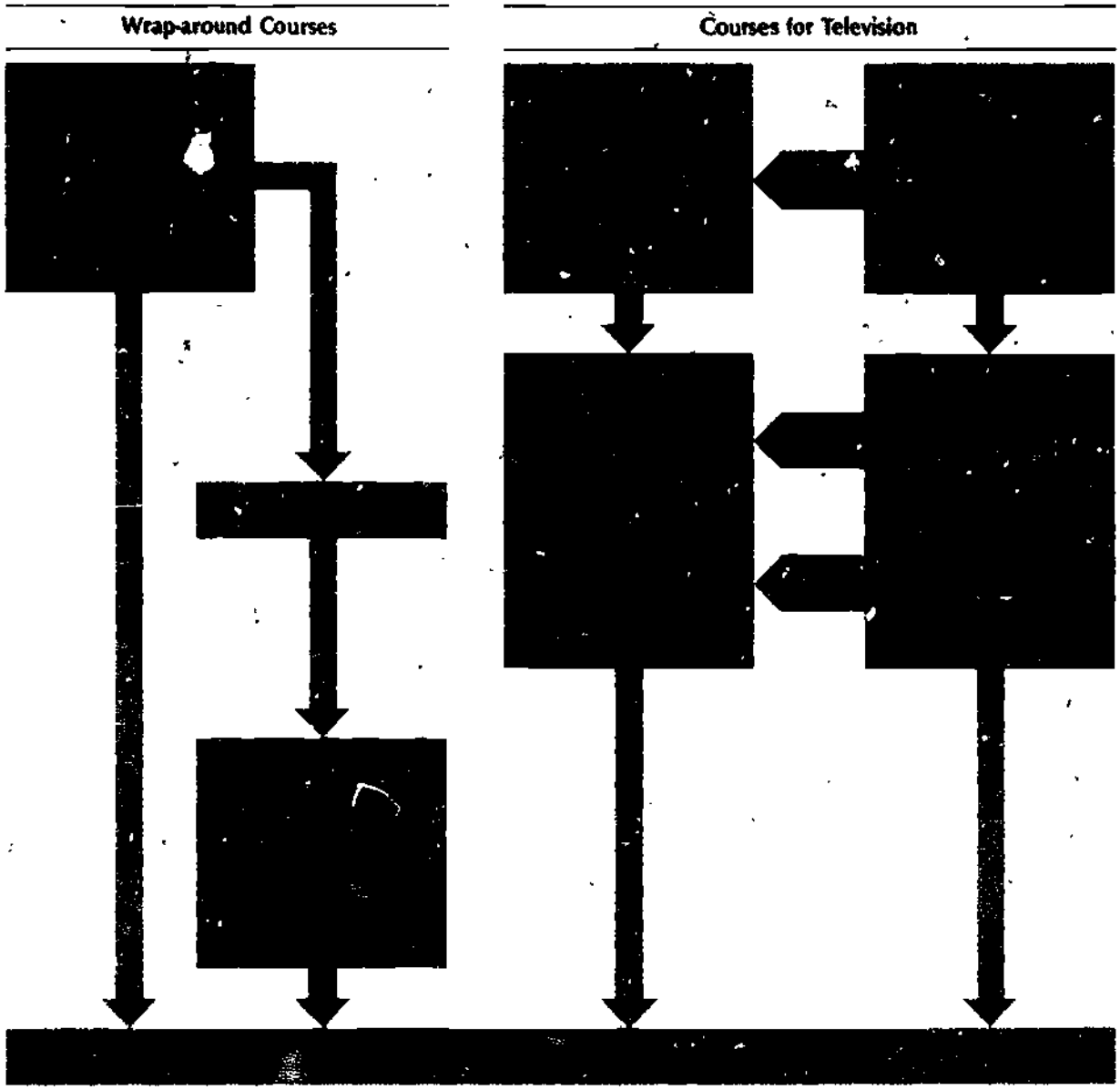

Figure 1. Telecourse Adoption—Programs

course use "just growed." Nevertheless, there are a number of issues that have to be resolved at some point in the process.

Two general questions seemed to occur with some frequency: (1) Will television lower academic standards/shortchange the television student? (2) Will television reduce on-campus enrollments? In the institutions we surveyed, the answer to both these questions was, according to people we interviewed, "no." Those individuals' judgments were supported on the latter point by the articles and reports we have reviewed, but the former is still being debated: Many of the objections to telecourses are based on ideals of what learning can or should be,[9] others may pertain to the role of the telecourse instructor, (see Section XI).

Another question that was raised by most institutions at this point concerned costs and returns from telecourses. Few institutions appeared to have examined them with any rigor (and as we indicate in the next section, it is an area in which experience has not provided all users with satisfactory answers) but we perceived a need to feel there would be a positive return on telecourse expenditures before those expenditures could be authorized.

More specifically, the following questions arose and were settled, whether with conscious intent or not, as telecourses were adopted and implemented:

- What will the administrative relationship of telecourses be to the rest of the institution? (That is, will they be administered by the appropriate department, an open-learning division, an evening college, a Continuing Education or Extension division, or in another manner?)
- Will there be a single person responsible for telecourse administration? If so, who/how many courses/how will we assign a load?
- What kinds of support will be furnished telecourse students and who will be responsible for it?
- How will the faculty member for a telecourse be chosen/compensated/evaluated?
- Telecourse credits: Will they be applicable toward a degree? If so, will there be a limit on the number of telecourse credits applicable to the degree? Will there

QUESTIONS A STATION MANAGER MIGHT RAISE ABOUT TELECOURSES IN GENERAL

How do telecourses relate to my station's mission and goals?

Are there other more effective ways to do the same thing?

Can this use of air time be justified in terms of service to a significant portion of my community?

Will telecourses improve or detract from the image of my station and the quality of programs it broadcasts?

Will airing telecourses gain/lose me support from my sources of funding?

- State Legislature
- The (college, school district) institution to which I am licensed
- Underwriters in the community
- Individual members

Will I receive economic or political support from the colleges in return for my involvement in telecourses?

Will telecourses be a drain on staff time or station funds?

How do we determine "success" in telecourses and what will my station need to do to ensure it?

Will telecourses help my station as we move into the future?

QUESTIONS A DIRECTOR OF PROGRAMMING MIGHT RAISE ABOUT A PARTICULAR TELECOURSE

How does this telecourse fit the programming mission of my station?

Who is the intended audience?

Is this audience being served elsewhere?

Will the telecourse draw nonenrolled viewers?

How does it articulate with the rest of my programming schedule, both in content and operationally?

Do I know the commitment of educational institutions in the area to supporting this telecourse?

Are the programs in the telecourse of good quality, both technically and in production values?

Would using this series free resources to use on other programming?

What other options do I have for that slot that would attract an equal number of viewers in light of my total situation in a multi-station market?

9 A professor at a small liberal arts college that did not use telecourses summarized some of the many reasons he felt his institution would not adopt one, although he intended to assign his students some programs on an upcoming series. His was a largely residential college that felt the interaction of students among themselves and with their faculty was important. It had an excellent faculty, many with national reputations, which was committed to teaching and to whom the idea of distancing themselves from either the course materials or students was inimical. The ideal class to most was a seminar in which learning went forward, not a class in which teaching occurred, and the classes were, for the most part, very small. Unfortunately, this kind of educational environment is not available to, nor may it be suited to, all students.

be (does the state require) a formula for computing credits for telecourses?

- Finances: How much will the student be charged for telecourses? Can the institution be reimbursed by the state for telecourses? Under what conditions?
- Students: Do students have to matriculate to take a telecourse? Must they be full time/part time? Will telecourses be identified as such on their records? What campus facilities will be open to them?
- Registration procedures: Will these be comparable to on-campus? Must the student come to campus? Register by mail? Register by phone?

Once these have been resolved, the institution is ready to consider adopting a particular telecourse.

The initial decision to consider a specific telecourse for adoption was, in most institutions, made through the same process or processes described on pages 12–

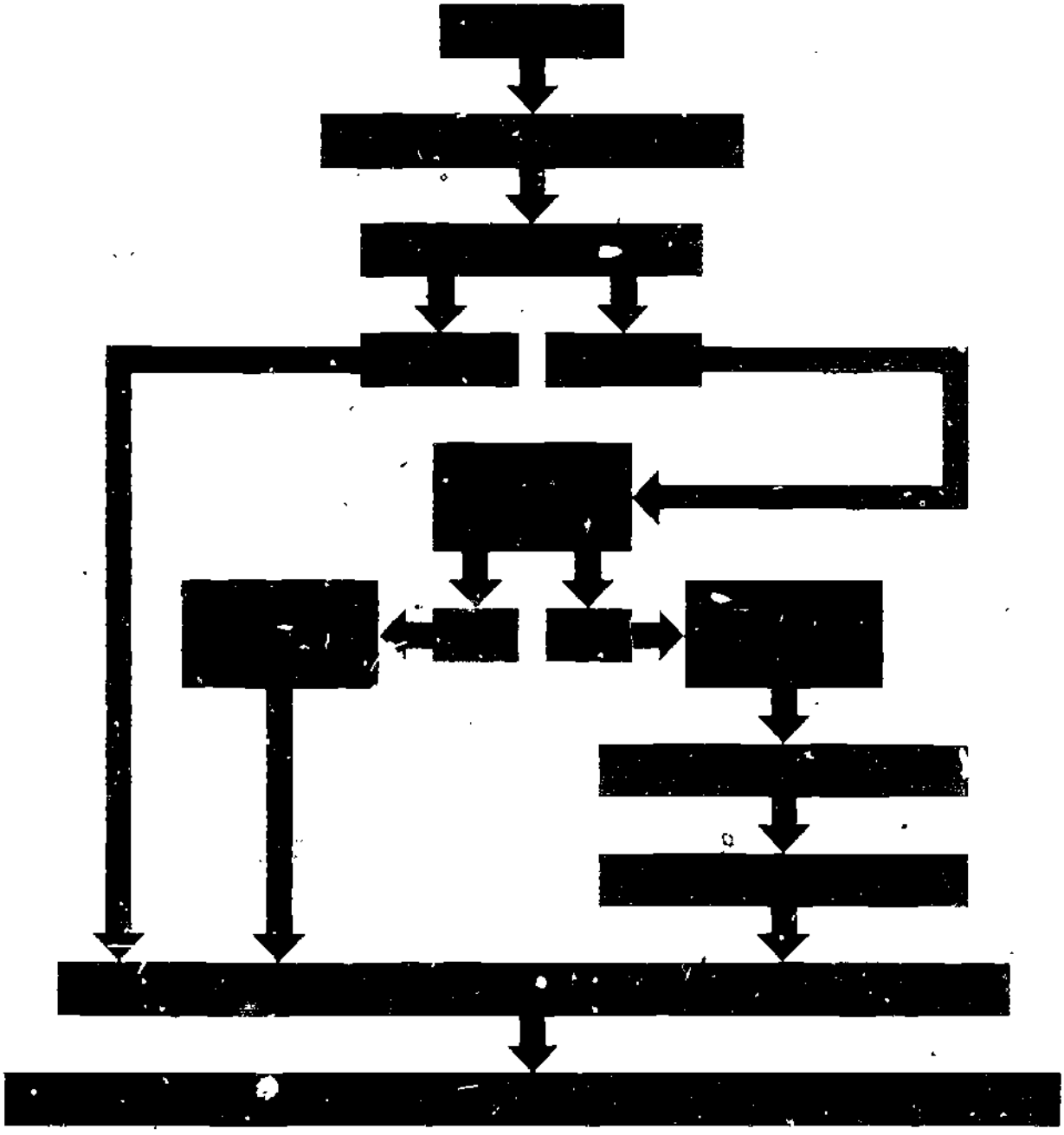

Figure 2. College Telecourse Adoption Flowchart

13. This decision was influenced by availability of courseware, quality, potential enrollments, perceived needs, and costs.

Once the initial screening decision has been done, the telecourse enters the normal institutional adoption process. The flow chart in Figure 2 is representative of such a process, although it may, of course, vary from institution to institution.

Several points in the process affect the length of time needed to reach a decision. Generally, the left path is the shortest and the right the longest, with the middle path, as might be predicted, somewhere in between. If a course has to be approved by a curriculum committee, the process can take a year or more. If not, two to three months was thought adequate by a number of respondents.

Both our data and the experience of telecourse producers has shown that the amount of time available in which to make decisions about telecourses, particularly wrap-around courses, has been a problem for many institutions. A number of creative ways have been and will probably continue to be used to shorten the adoption process in order to meet the rather inflexible deadlines imposed by set broadcast schedules. These include: finding a general number in a catalog--for example, "Special Studies In..."—into which a telecourse would fit; enlisting the support of a President or Dean of Instruction for rush approval; finding an instructor who would act as an advocate for a telecourse at the beginning of the process; putting all potential telecourses into an adoption process early on, whether the institution intended to use them or not. None of these, however, adequately answers the problems imposed by uncertain broadcast schedules, particularly as the adoption process is not the only preparation needed for a telecourse. Many institutions have found, for instance, that their class schedules are an excellent means of publicizing telecourses and inclusion in a class schedule requires from two to six months advance preparation. This is a period of time that must be added to the adoption time when working back from the beginning of a television-based "class."

At this point programmers and station personnel become important. In those cases where colleges initiate the airing of a telecourse, timeline problems can be solved through good communications. In those cases where broadcast commitments to a series are made primarily by the station, the colleges are dependent on the station for timely decisions.

These decisions are actually two, one of which should not be too difficult to adapt to college needs. The other may be thorny.

First, an educational institution needs to know if a television course will be offered during the course of a semester or quarter in time to make a decision about it. Second, if complete information is to be given a student (who is planning a complex schedule), the dates and times of the programs need to be supplied, either through the class schedules or by some other means.

The PBS Adult Learning Task Force (1979) recommended that PBS make a commitment to schedule the beginning of a series to a certain week at least seven months in advance. For most institutions this would allow ample course adoption time. The report, however, further suggests that "A commitment to a specific day of the week and time of the day schedule should be made at least ten (10) weeks prior to the first broadcast..." This may be too late to include the course in many class schedules. And there may be programmers who, preferring to retain as much flexibility in planning their schedules as possible, will resist scheduling even ten weeks in advance.

Needed Research: *To identify more clearly station and college needs in these areas and to generate a series of alternate solutions to scheduling problems on "wrap-around" courses.*

VI.
THE ECONOMICS OF TELECOURSES

- Telecourse costs and income are viewed differently from the points of view of the station, the college, the student and the publisher.
- Station costs include: staff time, tape handling, publicity, and expenses.
- College costs include: faculty salaries, nonteaching staff time, print materials, publicity, computer services and expenses.
- Costs which might be borne by either station or college include: rental/lease of programs, tape stock, dubbing, air time, evaluation, consortial fees.
- Student costs include: tuition, books and materials, travel expenses and time.
- The most important economic factors to colleges seemed to be the presence of state support or FTE, whether they had to pay for programs and air time, membership in a consortium, and the presence of lower-price competition in their area.

As with any other product, the costs of telecourses can be considered from either the producers' or the users' point of view. Our primary concern is with the institutional user, but since initial production costs and funding determine a major component of user costs, we felt a brief review of these would prove a salutary exercise.

THE PRODUCERS

The major television series that form the basis of wrap-around courses are very expensive to produce. Thirteen 55-minute programs can cost up to 10 or 11 million dollars. Fortunately for college users, these costs are usually underwritten by other funders.

Courses *for* television vary greatly in cost – from less than $100,000 to nearly a million dollars for a 30-minute, 30-program series. Generally the cost is proportionate to the "production quality" or how nice the program looks on the screen and how interesting it is. This is not always the case, but unfortunately, a variance from this rule more often is that expensive programs turn out poorly rather than that low-budget productions are excellent.

Costs for the preparation of accompanying print materials again vary, but within a smaller range. The budget for the production of a study guide (to the manuscript stage and including liaison with a publisher) and for production and distribution of an Academic and Administrative Support Package in a recent wrap-around telecourse was about $27,000. This figure would be increased substantially if the package had contained a book of readings, or if the instructional designer were also involved with the design of the television programs. A typical budget for disseminating information about such a series might run around $30,000 including design, printing, and mailing for brochures and "preview packets," together with telephone support. This amount would be higher if mailing of preview cassettes were included and neither of the types of costs discussed in this paragraph includes institutional overhead.

A television station (with greater or lesser involvement from a college) and a college (with greater or lesser involvement from the station) are, respectively, responsible for producing programs and print materials. The colleges are normally responsible for the national marketing of the telecourse package. There may be a separate but concurrent effort by a station to market the programs in a series.

Funding for *both* programs and materials generated for telecourses and for marketing can either come from internal institutional funds, from outside grant funding, or from commercial investment. To date, *most* of the funding for all the major telecourse producers except the University of Mid-America has come from within the institutional environment, with the colleges hoping to recoup their costs from revenues.

To this point, however, our description has omitted a

third member of many telecourse production teams, a publisher. Some institutions produce their own print materials for distribution. When they do not, the most common model is to enter into a contractual agreement with a publisher. The colleges generate a manuscript, the publisher makes it into a book, and the colleges' authors receive royalties on book sales. The publisher hopes to realize a profit on the sale of a large number of books because they are associated with telecourses and, in effect, invests in the telecourse through the costs of book design, production, storage, and shipping. The amount of this investment depends on the length, format, and design of a book or books, and the number of copies printed. Estimates of investments for recent courses have ranged from $6,000 to $70,000. Additionally, several major publishing houses have co-ventured on the production of television programs.

Revenues for telecourses come from three sources: lease/sale of programs, sale of Academic and Administrative Support Packages, and royalties (or sale of) books. Additionally, colleges that use their own telecourses for local students may apply part of this income toward amortization of production costs. Telecourse income is shared among stations, colleges, and publishers. In some cases, a fourth party, often a commercial organization, is added as the distributor of the programs for nonbroadcast uses.

Do investors make money on telecourses? To date no one seems to know. As in book publishing, some courses do well and some do not—but the ones that fail cost a college proportionately much more than a book that fails costs a publisher. None of the five major telecourse producers questioned is sure or is willing to say they make money or break even for either wrap-around courses or courses *for* television. *The Ascent of Man* made money for almost everyone involved; *Classic Theatre* did not. *Man and the Environment* has now recouped its costs for Miami-Dade. Miami-Dade figures that it should cover its investment in its new humanities course within seven or eight years if sales do reasonably well. A respondent from the University of Mid-America said that it was not possible to charge high enough fees to recover the costs of making good telecourses. Each producing institution seems to have had difficulty devising an accounting system that reflects its costs and revenues accurately, and none of the accounting systems was comparable to another.

The publishers' experiences have been similarly mixed, although their accounting systems may be more accurate. Their position has been further complicated by the need to estimate book sales for production and their vulnerability to returns.

Most publishers estimate that they may produce an overage of 6 to 10 percent on a given print run of books—these are books that are remaindered (sold at greatly reduced prices) or destroyed. Similarly, a publisher can absorb, without too much pain although perhaps with much complaint, returns of about 10 percent. If a production overage *or* returns hit 15 to 20 percent, the publisher (and this changes with the total number of books sold, of course) begins to lose money.

Because of problems in estimating telecourse enrollment, publishers have produced up to twice as many books as have been sold, and have had returns of up to 50 percent. In other cases, however, they have made substantial amounts of money.

USERS: THE COLLEGES

The economics of telecourse use for colleges and universities are complex and are probably unique for each institution. Gathering information about them is additionally complicated by the general lack of explicit knowledge about educational costs and benefits within an institution.[10] Some of the strictly economic variables that affect colleges *on each telecourse* are as follows:

- Does the institution pay to rent or lease the programs?
- Does the institution pay for air time?
- Does it have to generate enough income from tuition/FTE reimbursement to cover other than "out of pocket" expenses, and if so, what is included?
- Doesn't have control over the tuition funds generated or do they go into the general fund of the State?
- Does it receive state or grant support in any form?
- How much does it pay faculty to teach telecourses?
- What is the competition in the immediate area for students? (i.e., are there any institutions offering the same course for credit at an equivalent or lower cost to the student?)

The ideal situation for a college is, of course, being able to offer a telecourse for which it has no competition, for which it pays neither a user fee nor air time, but for which it does receive state support in the form of ADA or FTE reimbursement and for which it can hire inexpensive faculty. Few colleges operate under ideal conditions but various combinations of these factors can lead to success, however, the institution that is able to meet its expenses without any of them in its

10 Various comments from the American Council on Education Study of Cost Analysis in Higher Education support the impressions we gained during our research: "Cost is not a dominant consideration in most allocation decisions. Program completeness, program quality, institutional priorities, and interpersonal relations frequently are more important than costs. . . . There is a general lack of interest among institutions in managerial cost accounting." From "A Study of Cost Analysis in Higher Education," Volume 2, *The Production and Use of Cost Analysis in Institutions of Higher Education* (Washington, D.C.: American Council on Education, 1978), page 126, cited in Thomas O'Conner James (1978).

Table 3. Who Made Money on Telecourses under What Circumstances?

	State Support or Tuition Only	Two-Year Paid[a] C	Two-Year Paid[a] NC[c]	Two-Year Free[b]	Four-Year Paid	Four-Year Free
Broke even or made money, counting overhead	SS	1		1		
	TO				1	
Broke even or made money, not counting overhead	SS	2	1	2		1
	TO					2
Lost money	SS		2			
	TO				1	4

a. Paid for lease/rental of cassettes and air time (usually).
b. Did not pay for lease/rental of cassettes and air time.
c. Consortium member/nonconsortium member.

favor is rare, if not nonexistent. Overall, because most users of telecourses need support from sources above and beyond student tuition and the producers are uncertain of their net gain, we have come to the conclusion that telecourses as a system do not "make money." Individual institutions dealing with a part of the process have done well but to date telecourses seem to have cost more money than they have generated.

Table 3, drawn from the sample of colleges interviewed, illustrates our contention. It is not definitive for there are a number of factors not included and judgments have been made on the basis of sometimes incomplete information about costs and revenues. These judgments were, however, checked against numbers included in the "number of students needed to break even" and "number of students typically enrolling for telecourse" questions (see p. 28). In cases where there was a conflict between general answers and data for the current year, we used data for the current year. The pattern that emerges is supported by informal data from a number of other individuals and sources.

The variables in Table 3 are (a) whether an institution received some form of reimbursement from the State for telecourse students; (b) whether an institution had to pay for the lease of a telecourse series and air time from telecourse revenue (and if they did, whether these costs were diluted through consortium membership); and (c) whether the institution was two- or four-year (in any given area two-year institutions charged lower fees for courses than four-year and, probably as a result, had larger enrollments).

The results are fairly clear. Proportionately, more institutions with state support "made money" than those without state support, more institutions who did not pay for air time or belonged to a consortium "made money" than those who paid full charges, and two-year institutions came out better than four-year institutions. The one exception was Seattle Pacific University. This four-year institution broke even counting overhead, received no state support, and paid for its programs and air time. As we have noted before, however, it offered primarily continuing teacher education courses that fulfilled state certification requirements.

Of the eleven institutions that fell into the "broke even or made money" categories, five stated they made a lot of money. Of these, two four-year institutions did not pay to lease courses or air time; neither did two of the two-year institutions. The fifth (two-year) institution leased some courses but was a major producer and did not pay air time.

THE STATIONS

The economic picture for PTV stations is not nearly so clear. In most cases there is no measurable unit of benefit or return on programs such as the student and his tuition or FTE.[11] The nearest yardstick other than that supplied by the colleges is "numbers" or the size of the viewing audience. As we noted above, this is generally not measurable for telecourses and perhaps should not be rigidly applied to evaluate their benefit. Another possible index is the generation of memberships; the closest we have come to formulating a pattern in this area is that there seems to be an inverse relationship between a station's dependence on memberships as a source of revenue and its offering of or investment in the use of telecourses.

Two clearly economic aspects of telecourses do exist. The first is a specific mandate from a funding source such as a State Legislature to serve the needs of post-secondary education. This occurred in several State licensee systems and as a portion of the funding of some University licenses. The second is income from the sale of broadcast time. This is augmented if colleges pay for the use of programs that are to be aired, since the station does not then have to purchase or arrange for other material to fill those spaces.

11 The Mississippi State Educational Television Authority charges the colleges $10 per enrolled student. This kind of charge is the exception rather than the rule.

Figure 3. Telecourse Utilization Costs by Payor

Station and/or College Pays For
Rent/lease/purchase of programs
Tape stock
Bicycling costs
Tape/dub cassette for library or media center
Air time
Publicity
Evaluation
Consortial and/or membership fees
Station Pays For
Monitoring technical quality, checking program numbers, etc.
Staff time for educational liaison, other activities
Publicity
Overhead
Supplies and Expenses
College Pays For
Institutional print materials (AAS packages)
Nonteaching staff time
Faculty salary
Supplies and expenses, including phone, postage, and photocopying
Computer support for student services
Publicity
Consortial fee
Overhead

On the other side of the ledger, unless a station produces telecourses or has a full-time utilization person on staff (present in 17.7 percent of responding stations in 1975–76), the expenses of offering telecourses need not be very great, particularly if the colleges pay for the purchase or lease of programs and air time.

The purchase and lease of programs, and the purchase of air time both fall in categories that can be the responsibility of either stations or colleges. We have prepared an outline (Figure 3) to present specific expenses associated with telecourses; following it is a range of costs for each item. Our figures should be taken with a grain of salt. In most cases answers from both station and college respondents were vague. Our respondents seldom dealt directly with budgets. Further, creative accounting systems often meant that costs were fragmented, buried, or otherwise not easily available.

College and/or Station Costs

Rent/Lease/Purchase of Programs

Fees range from nothing to several thousand dollars. Wrap-around courses are normally free to user colleges because they are broadcast for a general audience. In some instances, however, stations have asked for contributions. The series may be free to the stations; at other times they may be relatively expensive. They are usually expensive if a local station wishes to purchase a series for reruns after national funds have ceased. *The Ascent of Man* for instance, was initially underwritten by the Arthur Vining Davis Foundation and the Mobil Oil Corporation and supplied to PTV stations at no charge. It now costs several thousand dollars to lease.

The lease or purchase of programs may be paid for through a direct payment (e.g., $3,000 for the unlimited broadcast use of a series for three years), through a direct payment plus a per student fee (e.g., $2,250 plus $10 per enrolled student), or on a per student fee only (e.g., $32 per enrolled student). Fees may or may not include a limited number of broadcasts/times of use, duplication rights, or use in nonbroadcast situations.

Tape Stock

Tape stock is an occasional expenditure of some magnitude. Two inch quad, most commonly used for broadcast, runs from $200–300 per hour of stock, depending on dealers' prices and the size of the order. A number of stations participate in group buys in order to reduce unit prices. Three-quarter-inch stock, used by some stations for broadcast purposes, is much cheaper—approximately $15 an hour—but the station must possess auxiliary equipment for its use.

Both types of stock can be reused. Two inch quad tapes are good for about 100 "passes" (plays, rerecordings, or a combination thereof) and ¾ inch for about 30 passes before they need to be retired to nonbroadcast use.

Bicycling Costs

These are costs of getting tapes from here to there. Often the seller bears them. Our respondents from stations that paid these costs generally characterized them as negligible; others indicated the college provides the service.

Tape/Dub Cassettes for Library/Media Center

Many stations did not do this; many colleges did not have it done. Where colleges did not have in-house capacity to dub tapes, they generally but not always paid the stations. A typical charge for a ¾ inch cassette was $8.50 per hour plus the cost of the tape. Another study (Dirr, Kressel, and Pedone, 1979) found that 26 percent of two-year colleges which used television for instruction in 1978–79 were provided with dubbing services by their local PTV stations.

Air Time

Public television stations donated air time for wrap-around series, many commercial stations donated air

time for telecourses as partial fulfillment of their FCC-mandated public service requirements. The State licensees we interviewed (Mississippi and Kentucky) did not charge for air time. The University/College licensees did not currently charge the institutions with which they were assbciated, but did charge other institutions. The community licensees interviewed charged fees ranging from $137 per hour to $218 per hour. Often stations charged differential fees, offering lower rates fo. air time to educational institutions. According to a number of respondents, these charges covered the station's immediate expenses for broadcast time only. The CPB/NCES study found that only 1 of 4 colleges paid for air time. The average amount was approximately $125 per hour (Dirr and Pedone 1979). In that study, however, no distinctions were made between colleges using wrap-around courses and those using courses *for* television.

Evaluation

We did not ask our respondents about evaluation of telecourses and the costs it entailed. This category was suggested at a later meeting of station managers. Their belief was that very few stations and probably fairly few colleges spent much on evaluation, but that it was an area that needs more attention.

Evaluation costs for a college can range from a few dollars for a sheet passed out in class to many thousands. A large community college estimates that questionnaires covering all the telecourses offered in a semester cost about $1,500–2,000 to prepare, mail to 5,000 students, and evaluate.

One of the few PTV stations that has a full-time researcher as a regular part of its staff reported that basic support for the office cost about $30,000 per year and that each survey cost another $500–600 to design and conduct. Our informant added that certain costs were not counted in these figures since the station relied on a great deal of volunteer labor. This research, of course, covered all station operations: one way to arrive at the amount that should be assigned to telecourses would be to calculate them in proportion to the amount of air time they occupied.

Consortial Fees

These vary according to a wide variety of factors. One consortium charged 25 cents per enrolled student FTE in member colleges. Others charge on a percentage of expenditure basis. What emerged from our research is that a formula for equitable and effective consortium funding is yet to be found.

Station Costs

Monitoring Technical Quality, Checking Program Numbers, Etc.

Before a program is aired, many stations wish to ensure that it is not damaged and that it has the correct program number and title. One station did not do this. Others did, saying that this was standard procedure when they were not sure of the source of programs. Responses about costs—none with figures attached—ranged from "in-house costs like these are never broken out" to "we spend a significant amount of time handling improperly dubbed and badly labeled tapes."

Staff Time for Educational Liaison, Other Activities

This was clearly one of the major costs connected with telecourses for some stations—those with a high involvement in post-secondary activities. To others—those who simply allotted a certain amount of air time and let the colleges fill it—it was negligible. Among our respondents there was no clear correlation between this item and licensee type, size of audience, funding source, or expressed station philosophy.

Publicity

Most stations incurred few costs for publicizing telecourses. On-air promotional slides and listings/occasional stories in monthly program guides were the extent of their station publicity efforts. Some stations worked with the colleges, advising and lending expertise in this area, but counted this time under staff costs.

Overhead/Supplies and Expenses

None of the respondents gave us a formula or means of figuring overhead on itemized expenses. Similarly, none attached a figure to supplies and expenses.

College Costs

Institutional Print Materials

The cost of these materials ranges from nothing (usually with leased or purchased courses) to $200. It is a one-time, nonrecurring expenditure as AAS or similar packages can be used throughout subsequent offerings of the course.

Nonteaching Staff Time/Supplies and Expenses

No respondent was able to attach figures to these except Seattle Pacific, which figured $10 per credit, although several respondents were able to identify numbers of staff/portions of staff time devoted to administering telecourses. Given the difference in telecourse operations, inter-institutional comparisons are not possible in this area. Four respondents who handled both telecourses and other courses felt they spent significantly more time (they could not identify exact percentages) with telecourses than with nontelevision-based classes. However, this may have been related to the use of a new educational system. Common sense indicated that beyond a base point these costs should be directly proportiona' o the quality and quantity of student services an institution provides.

Faculty Salary

Salaries for telecourse faculty ranged from $250 to $1,680 per three-credit course. No clear patterns concerning two- or four-year institutions—public or private—or success of telecourses were apparent in the data except that three of the lowest salaries were paid by three of the least successful institutions. The respondents from institutions which assigned telecourses as part of a regular course load did not provide figures in this area.

Salaries were, for the most part, beyond the control of the telecourse administrator, being determined by university regulations and/or by the prevailing rate for similar courses/overload units. In some cases, however, there was scope for negotiation. Larger than normal numbers of students were assigned to telecourse faculty in some institutions. In others, adjustments needed to be made because the instructor for a course spent fewer hours "in class." Faculty were paid by a variety of means: on an overload basis, per credit, per student, per hour, or as a percentage of a regular course load.

Publicity

In some institutions there seemed to be a relationship between money spent on publicity and enrollments in telecourses. As in most areas, however, data was incomplete for a majority of sources. A number of respondents said that (1) publicity costs were buried in several budgets, (2) they combined telecourse publicity with other publicity, or (3) they did not really know how much they spent.

Computer

A few of the largest telecourse users have installed computer systems to keep student records, to assist research and evaluation activities, and to provide variable responses to student performances on quizzes. Once hardware and programs are available, Miami-Dade figures an added cost of $5 per student per class for the last service; other costs depend on a wide range of factors. A general rule for computer use is that it becomes increasingly cost-effective as numbers of students grow.

Overhead

Most colleges and universities either did not or were not required to calculate overhead, and the definition of "overhead" itself varied from institution to institution. Two respondents had figures to account for overhead charges one was 20 to 30 percent, the other 150 percent of direct costs.

In sum, the costs of telecourses to either station or college varied widely in response to many factors. Our conclusion was that it was not possible to prepare a cost formula that was universally applicable. What is possible is the material we have presented—a list of costs (Figure 3) that can be used as a check sheet for telecourse expenses, including those that may need to be negotiated between station and college; and a list of questions that should be among those an institution considers when evaluating the benefits of offering a particular telecourse.

COSTS FOR STUDENTS

The end receivers of telecourses are students. Their costs are probably the same as or somewhat lower than they would be for regular courses in the same division or department of their institution.

Tuition: This depends on the institution, and the number of credits assigned a telecourse. As mentioned above, telecourse tuition is generally equal to or lower than tuition for nontelevision-based courses in the same department or division of an institution.

Books and Materials: Telecourse packages usually range in cost from $10 to $25 depending on the number and quality of the books. The additional expenditures for supplies such as paper are probably equal to similar expenditures for on-campus courses.

Gas and Time: Savings in this area can be significant. Most telecourses require fewer on-campus meetings than regular classes; costs vary directly with the number of required campus visits and the distance of the student from the campus.

INCOME FROM TELECOURSES

The income from telecourses to educational institutions falls into two areas: actual cash flow, and, assuming we are dealing with at-home students, savings in institutional overhead (plant and administrative costs). Robert McCabe (1979) estimated the latter to be about 30 percent lower than overhead for traditional on-campus courses, but this assumes that television students *would* be accommodated by an institution or attend it were it not for broadcast education.

The actual cash flow is easy to calculate:

Income = Number of students × Cash income per student.

The cash income per student is generated by tuition and/or FTE reimbursement. Calculating it, however, is complicated by the fact that some colleges or continuing education programs are not supported on the basis of head count. They are supported to a greater or lesser degree by the State or their institution and that support may, but does not necessarily, change according to the number of students.

In looking at the presence of support, tuition levels, average enrollments, and break-even enrollments, we have come to the following loose generalizations. there is a tenuous, positive relationship between average actual numbers of students in telecourses and the number required to break even; four-year institutions often had

Table 4. Comparative Cost Distribution for a Typical Community College Traditional Education and Television-Centered Education*

Traditional	Television-Centered
Institutional Support—50%± Plant operations; administration; institutional programs; compliance and reporting; student services; instructional support.	*Institutional Support*—35%± Plant operations; administrations; institutional programs; compliance and reporting; student services; instructional support.
Direct Instruction— 5%± Instructional Materials 45%± Instructional Personnel—including salaries and fringe benefits of faculty, instructional aides, etc.	*Instructional Materials Acquisition and Modification*—15–20% *Delivery System*—5–15% *Delivery of Instruction*—15–35% Includes costs of air time and faculty salaries.

*From McCabe, Robert H., "The Economics of Television-Centered courses" in Roger Yarrington, ed., *Using Mass Media for Learning* (Washington, D.C., AACJC), 1979, p. 31

a higher tuition per course, lower enrollments, and lower break-even points than the two-year institutions; and four-year institutions, in general, seem to receive less state or institutional support than two-year institutions for those programs in which telecourses are located.[12]

Tuition ranges for broadcast television courses in four-year institutions were from $60 to $120 and averaged $82.88 for three units. In two-year institutions they ranged from 0 to $115 and averaged $34.33 for three units. This average is skewed by the presence of three California community colleges, which charge no tuition at all, in the sample of nine for which tuition figures were available.

Responses concerning average enrollments for four-year institutions ranged from less than 10 to 300, and break-even enrollments ranged from 10 to 125. For two-year institutions average enrollment estimates ranged from 23 to 200, and break-even enrollments from 20 to 250.[13]

Are telecourses cost effective? It probably depends on what one means by "cost effective." If this means that they pay for themselves from start to finish without the assistance of tax dollars or grant support, no. If it means that they compare favorably with on-campus courses, given prevailing levels of support, the answer is probably yes. What we can say with some certainty is that the cost structure of television courses is not that of on-campus courses. McCabe (1979) states that "in television-centered courses traditional costs are reduced and new costs added," and proposes the cost-structure analysis shown in Table 4 as a means of comparison.

McCabe also points out that the profile of marginal cost per student is very different than that for on-campus courses: "The high fixed cost and low incremental costs [of telecourses] form a declining cost curve which begins above traditional instruction, and crosses below at a predictable level of enrollment, depending on the individual institution, the course, and the instructional services provided." In other words, once enough students enroll to cover basic costs, each additional student is, in large proportion, "gravy."

A related question that is probably as important as "are telecourses cost effective?" is whether education *should* be cost effective on a "here and now" basis. Although few of us can endorse wasteful expenditures, most of us recognize that there are positive social benefits to education. These may not be amenable to immediate measurement, but in the long run they generate an economic as well as a social return.

An immediate social benefit of telecourses may be the savings on transportation and time mentioned under Student Costs: As energy grows more expensive, the substitution of telecommunications for systems involving extensive travel may be increasingly desirable. Another benefit is the new audience, however large it may be, that telecourses reach. These are, however, benefits that an individual institution often cannot count, and many institutions are having difficulty justifying the use of telecourses from an economic standpoint. We, therefore, suggest that ways must be found to support the use of telecourses if they are considered socially valuable and if their use is to increase.

> Needed research *At what point, to whom, and in what amount is support for telecourses most desirable?*

Several organizations have begun to address themselves to these questions. Both the Carnegie Commission on the Future of Public Broadcasting (*A Public Trust*, 1979) and the PBS Adult Learning Task Force have recommended that more money be allocated to the production of educational television programs. More specifically, Carnegie recommends a program Endowment which would "finance and stimulate the development of quality programs that both test and demonstrate the potential of telecommunications for learning. We recommend that the Endowment, acting as a catalyst, allocate $15 million per year for such research and demonstration programs on television."

Within the college system, a report to the California

12. The last conclusion is supported by the material in Appendix B.

13. According to Dirr, Kressel, and Pedone (1979), the average enrollment for all two-year colleges offering televised instruction (including on-campus closed-circuit) was 73 students per course.

Educational Telecommunications Committee (Heckman, 1979) suggests that the State subsidize upper division telecourses that are offered in Extension Divisions and can be transferred into a student's regular program, much as it already does for lower division courses in junior and community colleges. McCabe (1979) suggests that educational institutions reassess the way in which they analyze costs (cf. above).

Support for students in post-secondary education programs may or may not include telecourses. The Veterans Administration and other programs at both the state and federal levels often have requirements—full-time attendance, enrollment in a degree course, presence in a classroom—that exclude nontraditional students. A number of organizations have recently initiated discussions on ways these regulations could be modified; their modification would, presumably, enable a substantial portion of potential telecourse consumers to be provided at least partial payment for their education.

Institutions may be able to do a number of things to decrease their costs or extend their outreach capacity. The first step for some may be simply to identify costs and to account for income more clearly. Outlining and refining adoption procedures and student support services is another useful course of action. Expenditures on promotion increase enrollments but it is also possible to measure the effectiveness of these expenditures. Consortia provide a means of distributing investments in courses and air time and support for informational activities (cf. Section X).

Both producers and users need to explore alternative uses of telecourse materials, and systems through which their purchase might be shared—for instance, cost sharing with a media center (if rights permit), which would then allow professors to use individual tapes in classes.

Producers also need to increase the "backlist" or "next-time-around" use of wrap-around series. At this time, decisions to air these series after the national feeds are made by individual stations or regions. These stations or regions often must pay high fees and do not always take college needs and the series potential for educational use into account. Some colleges also purchase these series, but such purchases seem to be limited by high costs.

To date, support for telecourses from outside the immediate system, either in terms of subsidies or initial investment, has come from three major sources: underwriting of series that, serendipitously or as a result of planning, lend themselves to educational application; state or federal tax monies in the form of outright grants or student subsidies; investments made by publishers. The third area is a form of support that must be recouped over time or it will cease. The first two, although they will undoubtedly continue, may not grow in size since there is every indication we are at the top of an S-curve in educational expansion. Many currently point to the prospects of declining expenditures, and nontraditional education is, traditionally, the first target for reductions. If the use of telecourses, or more broadly, telecommunications in education is to expand much beyond its present base, it may be necessary for educational institutions to seek new strategies for securing support and to build alliances with noneducational groups, beginning with stations but, perhaps with their help, moving beyond them.

VII.
STUDENT SERVICES

- Colleges provide most of the support services for students' including: flexible registration procedures, access to books and materials, informational and motivational letters, discussion and review sessions, frequent quizzes, library privileges and academic advisement.
- Some colleges also provide telephone contact with instructors, reserve copies of the television programs, have computer generated mailings and use radio and newspaper to supplement the television programs and print materials.
- Station contact with students is limited but can include responding to inquiries by referring students to participating colleges, promoting telecourses with on-air announcements, and limiting telecourse pre-emptions.

The way the course is offered, the amount and type of support services, are as important as the course design in determining student performance and completion rate [Leslie Purdy, 1978]

Student support services for telecourses begin at registration and continue through the last examination. They are of critical importance to those students whose motivation is not high or who are not accustomed to the type of effort required in an organized educational experience. Leslie Purdy characterized student needs in telecourses as "involvement" and "feedback." We shall add convenience, because it seems to be a major factor in student decisions to adopt this form of education.

Telecourses are a nontraditional educational system, reaching for the nontraditional student. Most institutions have found that telecourse students need a kind and quality of service that differs from those offered to on-campus students. "The television programs," maintains McCabe, "do not substitute for the work of the faculty member in the lecture/discussion class: they are simply one component of the newly arranged combination of learning services" (McCabe, 1979).

Most of the institutions interviewed offered core types of services to students. Some added innovative and useful extras to them. Among our respondents' institutions, the large community college operations had the largest array of services. Otherwise there was no indication in our data of the types of student support that were best for a particular kind of operation.

We have more data about the utility of certain services in determining student success. Most of it is from major telecourse users. Miami-Dade Community College notes a correlation between successful completion of telecourses and the use of the computer-based RSVP system. The Southern California Consortium for Community College Television reports that "In most surveys, student evaluation of television instruction identifies communication with the instructor of record as the single most important factor in the successful completion of the course offered on television" (n.d.). Staff members at Coastline Community College also believe that instructor telephone contact with students is important and an evaluation survey conducted by Dallas County Community College District (February 1979) found that, "Two weaknesses of telecourses on which students commented were (1) lack of contact with students and instructor, and (2) lack of feedback on test scores and results."

Clearly, telecourse students (at least at the two-year college level) seem to desire some kind of contact with their instructors. Beyond stating this, however, we felt the best thing we could do would be to move through a descriptive list of the services that we found, and pose the research question: *What combinations of student services are best suited to each of a range of administrative and economic models for telecourses?*

REGISTRATION

Institutions involved in educational outreach activities have consistently found that ease of registration facilitates student participation. Many accept mail-in regis-

tration and attach registration forms to direct mail brochures Some accept phone registrations. Some allow students to charge fees on a major credit card. A number of institutions have found it useful to keep registration open until after the first p ograms have been aired in order to include students who were "turned on" by them In more traditional institutions some persuasion is necessary before Registrars will accept many of these procedures.

Students had to meet two sets of requirements in order to enroll in telecourses The first was determined by institutional policies (e g , high school degree, open admission, etc) The second set was in relation to the particular course (e g , prerequisites) On the whole, neither was difficult to surmount.

The trade-offs between the "if it can sign a check, register it" and a more rigorous approach to academic preparedness will be discussed elsewhere. In general, our respondents supported the fact that retention rates vary directly with screening and counseling. Several suggested that first-year or first-time college students not be encouraged/allowed to enroll in telecourses

BOOKS AND MATERIALS

Most students received information about the books and materials that were required for the course when they registered. A few institutions included the cost of the books in a registration or course fee and sent them to students This saved the students the time and effort of coming to a bookstore which for the first-time student on a campus with typical parking problems can be considerable On the other hand, it represents time and effort for the telecourse administrator.

LETTERS

Almost all institutions sent registered students an introductory letter to the telecourse (cf. samples in Appendix E) that outlined the course requirements, times and places of course meetings, if any, the name and telephone number of the faculty member responsible for the course, and other procedural information Some but not all institutions sent materials to students regularly throughout the quarter or semester These included newsletters and post card reminders for examinations. The rationale was both to provide information and to provide the student with a sense that he or she was not "out there" alone, with no one who cared.

FACULTY IDENTIFICATION

Some faculty members found it helpful to identify themselves to the students by providing biographical information or, in one case, a brief appearance on television before the first program. As a result, they believed, students saw them as knowable individuals, not simply disembodied authority figures.

DISCUSSION SESSIONS

Reactions to discussion sessions have been mixed. Purdy states that "study after study tells us that *most* TV course students do *not* want more on-campus sessions or anything that decreases their ability to complete the course at home and at their schedule" (Purdy, 1978). Our experience indicates that this is not always true, some students, perhaps but not definitively, located in four-year institutions, do want "more" discussion sessions. "More" is a relative term, however, and since the number of discussion sessions ranged from none to seven, it is not possible to make blanket statements about when, where, with whom, and why what number of discussion sessions might be best. A possible solution to this ambiguity is to offer optional sessions. Some campuses add "points" or additional credit if a student attends these. Others put students in touch with nearby course-mates so they can meet informally.

REVIEW SESSIONS FOR EXAMINATIONS

According to our respondents, student reactions to review sessions for examinations have ranged from apathetic to enthusiastic. A critical factor seemed to be the instructor. There was not enough data, formal or informal, to support other conclusions.

QUIZZES

Students in a telecourse have few measures to gauge how well they are doing, and "first-time" students are singularly ill-equipped in this area. Many telecourse administrators and faculty have found that frequent quizzes with prompt responses have been appreciated by students, and that the more detailed the response, the better: "A Coast study showed that students who got performance reports back on individual quiz items did better than students who got only a total grade. However, a third group of students who received a description of what was wrong with their answer and where the right answer could be found, had better end-of-course grades than students in either of the other groups" (Purdy, 1978) More informal assessments have also shown that students prefer at least some self-test materials in study guides.

EXAMINATIONS

A number of schools offer students a choice of several locations for mid-term and final examinations. Some also have alternate examination dates for those who are unable to come at a particular time.

TELEPHONES

In almost all locations, students were able to phone somebody for information about the course. This was not always the faculty member in charge of the course. Some institutions offer "hot lines" at night or twenty-

four hours a day to answer student concerns. Others designated "office hours" during which a faculty member is available. One approach has been to have the faculty member for a course systematically phone each student in order to chat and open lines to further communication. Institutions serving wide geographical areas sometimes have found it useful to install incoming and/or outgoing WATS lines. The problems associated with telephone communication included time spent in getting through college switchboards, faculty members not receiving messages left for them, and students seldom using oppportunities to telephone or, when phoned, having nothing to ask or say.

LIBRARY PRIVILEGES

Most institutions in our sample extended library privileges to telecourse students. Few had any indication of whether or not the students used them. Few thought students did use them.

TAPES/TELEVISION AVAILABILITY

Some of the larger institutions—primarily junior and community colleges—placed copies of telecourse programs in college libraries or learning centers. Reports on their use were mixed. Dallas and Coastline reported that student use of videocassette material was "quite heavy"; two other institutions found it was "very light." Differences in use could possibly be related to the numbers of students simultaneously taking telecourses and on-campus courses and who are, therefore, on campus periodically. This is an area where further study would have clear utility to telecourse administrators. Some campuses also provided television sets so students could view programs on campus.

COMPUTER SUPPORT SERVICES

A number of large community college campuses, most notably Miami-Dade and Coastline, have found computer-managed instruction of tremendous value in providing student support services. Miami-Dade uses the RSVP or Reponse System with Variable Prescriptions, which "... is a computer-based instructional management system unique to the Open College delivery system. Weekly or bi-weekly, the student responds to the appropriate set of questions by bubbling in a mark-sense card. The card is mailed to Open College where it is scored and is the basis of an individualized learning prescription indicating his performance to date and specific instructions or encouragement regarding his/her understanding. The letter is then returned to the student by mail" (Glenn, in a communication to the project). Kamala Anandam and Terrence Kelly have analyzed the effects of this system and concluded that "... students who participate in the RSVP system of instruction (approximately two-thirds of the enrollees do, some of whom do so by constant reminders) are more likely to complete the course and make better grades" (Anandam and Kelly, 1979). Initial costs for such a system are high although computer hardware can also perform a wide variety of other record-keeping and course management tasks. (See Appendix F for a more complete description of the RSVP system.)

RADIO AND NEWSPAPER

Occasionally college instructors have used local radio broadcasts or weekly newspaper columns as a means of providing additional information to students. A teacher for a college in the Southern California Community College Consortium described her experience with radio:

> Student reaction was very positive—many told me how much it helped them. After the first ... broadcasts I stopped just summarizing the television lesson, and instead stressed only the main points, adding comments of my own. (Southern California Community College Television Consortium—n. d.)

At another college in the same system the campus instructor responded to student and public questions, submitted by mail, in a local newspaper.

ACADEMIC ADVISING

We did not ask about academic advisory services for telecourse students and it was not mentioned by any of our respondents.[14] It has, however, been raised by a telecourse user. This individual believed telecourse students needed advice on course load and distribution and generally did not receive it.

STATIONS AND THE STUDENT

None of the television station respondents had any direct regular contact with students. One individual occasionally gave speeches or presentations at colleges; a number of stations had student internship programs; most received occasional phone calls, particularly if something had gone wrong. Indirectly, however, stations can—and do—provide services to colleges that can be interpreted as "student services." Among these are the following:

1 Receive incoming calls about telecourses and route them to appropriate numbers.

2. Preempt telecourse programs as seldom as possible.

3 Inform the colleges and/or students when preemptions take place, and reschedule the preempted program at a similar time.

4 If possible and appropriate, run informational

[14] At a later date, one four-year institution informed us that their advisement system worked through academic departments for both telecourse and regular students

slides about telecourses: "The next meeting for this class will be at the campus on which you have enrolled, this Saturday, from 9 to 12 P.M."; "The date of examination for this course has been changed to May 14. Please call 123-1234 for further information."

Most importantly, although perhaps only peripherally related to "student services," the stations are the major determinant in the scheduling of telecourses.

When asked "When is the best time to schedule telecourse programs?," most college respondents either picked one of the times telecourses were currently being shown (see below) or said that they should be aired in prime time. The extent to which the former answer was the result of a system's members reinforcing each other in the best decision or in mutual self-delusion is indeterminable. What our data does indicate, however, is that our question was, perhaps, inappropriate. The two major questions that seem to emerge from the responses about telecourse program times were: (1) Is broadcasting at prime time desirable? and; (2) Are there factors specific to regions and audiences that can be ascertained and are important to telecourse scheduling?

The first is probably rhetorical at present but could become important if stations receive second transmitters to augment existing educational broadcasting, or if there is greater use of cable systems. As it now stands, few stations would consider putting a course *for* television on in prime time; it serves too few people.

Those in favor of using prime time for telecourses maintain that this is the period when people are most apt to watch television. It comes after the dinner dishes and before exhaustion. Opponents of prime time (and we talked to no respondents from the same area who came down on different sides of this question) said that people wanted to relax then and that the competition was too great, particularly in one-set homes where other family members (especially children) wanted to use the set.

The largest telecourse enrollments over the nation have clustered on the wrap-around series that were aired in prime time. However, their quality—good enough to *get* them on prime time—was considerably higher than that of the programs in most courses *for* television, so we as yet have no fair measure by which to judge this question.

Even if we did, we might find it faulty when transferred from one place to another. Several programmers mentioned factors about general programming that they felt were specific to their area—for instance, people seem to go to bed earlier on the West Coast than on the East Coast. Others mentioned factors that were specific both to telecourses and to regions—for example, "Don't put them opposite the News" (Mississippi); "They go well against the News" (Kentucky). Further, at least one institution (Coastline) has found that student characteristics differ according to the time of day. Daytime viewing during school hours attracted more housewives/mothers, whereas early morning, evening, and weekend programs attracted more men and employed viewers.

Telecourses were aired (1) in the early morning; (2) at noon; (3) in the mid-afternoon; (4) in the early evening; (5) in the very late evening; (6) on weekends. The only times that stations consistently avoided were working hours (with the above exception), prime time, and football times. Each time had its advocates; the only consistency we found was that more people on the West Coast and fewer on the East Coast said early morning was a good time.

Surveys of student opinions show a similar lack of consistent preferences.

> Needed research: *What regional/social/occupational characteristics determine the times at which individuals want to or can learn from television? What do these imply about scheduling telecourses?*

VIII.
MARKETING, PUBLICITY, AND PROMOTION— INFORMING THE PUBLIC

- Generally, the greater the amount of promotion, the greater the enrollment for telecourses.
- Targeted mailings have been found a most effective promotion technique. Other effective techniques are blanket mailings, placement in class schedules, newspaper ads, and TV ads.
- Most stations aired telecourse announcements, but the general belief was that telecourse promotion was primarily a college responsibility.

Marketing, publicity, and promotion are necessary to telecourses. Many children grow up assuming they will attend college, but few grow up assuming they will take telecourses. Not that many people know they exist. Further, a good portion of the audience we hope to reach through telecourses and other nontraditional modes of education grows up assuming it will *not* attend college.

Respectable educational institutions, however, have only recently and under considerable duress become aware of the need for information dissemination about any aspect of their operations. Although attitudes are rapidly changing, the issue is still touchy and most agree on the fact that "advertising" is a nasty word and "marketing" is only a shade nicer.

This bias is supported by law in some states. Restrictions include the use of paid advertising beyond "providing information about educational opportunities," or using certain types of tax monies for advertising-related purchases. In addition, there is a gray area in the use of PBS stations for the dissemination of on-air information concerning telecourses. Advertising is, of course, not allowed, but public service-type announcements are. Television stations probably have the right to put general information slides about educational uses of programs (e.g., "A credit course may be available on this series from your local colleges. For further information call 452-3411 at UCSD, 765-3432 at Mountain Community College," etc.) and this restriction apparently does not preclude stations from engaging in their normal activities to promote programs on the air, which promotion may include a mention of the fact that telecourses are available. There are no FCC restrictions on off-air advertising by TV stations.

In the end each station must interpret these nebulous guidelines for itself. Interpretations have ranged from a refusal to provide any on-air information to the extensive use of off-air announcements accompanied by news releases, radio announcements, ads in newspapers, and brochures and flyers.

Telecourse publicity and promotional activities have been, not surprisingly, greater through the colleges than the stations. College activities have included mass mailing, targeted mailings, pages and listings in TV Guides, newspaper ads, Public Service Announcements on radio and television, radio interviews, slides on the local PBS station broadcasting the course, brochures distributed through libraries or places likely to draw people interested in a telecourse topic—Home Gardener brochures at nurseries, for example—quarterly catalogs, course listings, and posters.

For the institutional users of telecourses, the marketing process begins with the decision to adopt a course (cf. above). Ideally this is based on an informed judgment concerning the course's quality and appeal to students coupled with a knowledge of student needs. After this decision, two questions are central to telecourse marketing—*How much money will I spend?* and *How can it best be spent?*

Assuming that budgets are well used, the greater the amount of promotion, the greater the enrollment for telecourses. Unfortunately, we have been unable to find or develop any means of calculating guidelines for the expenditure/enrollment curve or of finding the point at which it peaks.

Needed research *Would it be possible, taking several models of telecourse users, to project returns on expenditure for promotion?*

We do have both station and college respondents' subjective judgments of whether expenditure on telecourse publicity was sufficient. For the most part, they felt it had not been enough.

A majority of the station respondents felt the amount of promotion for telecourses had been insufficient, but that telecourse publicity was primarily a college concern. When asked what advice they could give colleges, the responses covered several tactics but unanimously suggested a need for more sophistication in marketing strategies. Most frequently mentioned was the need to target and time promotion carefully.

Most college respondents also believed telecourses needed more promotion. Some had clear plans for further activities. Others may have had the budgets to execute them. None had both. One or the other was consistently cited to explain the current "lack" of promotion.

When asked about the advice they would give other institutions on publicity, most of the college respondents (and almost all the "successful" respondents) suggested targeted mailings. Three mentioned that newspaper advertisements had been effective for them with one adding that Monday was the best day to advertise. One administrator in a successful four-year institution had paid for an ad (very inexpensive) in the newspaper television listings. Immediately after the listings for national wrap-around series broadcast times there was a line—"For College Credit. Call . . ."

Coastline Community College/KOCE-TV surveys found that announcing telecourses in class schedules is a most effective way to reach the local student body, a clear majority of respondents to surveys in the Maricopa District said they had learned of telecourses through the class schedule. Both districts, however, conduct blanket mailings of their catalogs and schedules throughout the area they serve—a course of action not open to every college and particularly not available to four-year institutions serving an undefined geographical area.

A University of Mid-America survey of eleven telecourse users including some consortia (Brown and Wall, 1978) found that "institutions, in most instances, considered brochures and newspaper ads to be the most effective promotional means. TV ads were considered to be important for promotion by over half. A variety of other means were considered effective in promotion by a minority of participants." These findings—assuming that brochures imply targeted mailings in most cases—are consistent with the responses from the institutions we surveyed.

The emphasis on targeted mailings is also consistent with the stations' feeling that colleges should identify their audiences more clearly and with our earlier contention that there were many "audiences" for television courses, not just one. Parents of young children, for example, might be particularly interested in *The Growing Years*, a course on child development; farmers are most likely to want *Pests, Pesticides, and Safety*.

Generally, the clearest answers about promotion—how much was spent, how was it spent, what was effective—came from those institutions who later characterized their experience with telecourses as "successful." Clearly unsuccessful telecourse users said that promotion was important, but were vague about the ways in which it could be used.

IX.
INTERACTION OF TELEVISION STATIONS AND COLLEGES

- Patterns of station-college relationships varied according to the attitudes of the college and the station.
- Many respondents felt there was a lack of adequate communication and understanding between colleges and stations.
- Successful telecourses require cooperation between stations and colleges. [Areas of cooperation are illustrated in lists of DO'S and DON'TS.]

Aside from a general willingness on the part of local broadcasters to make time available for our courses, their primary concerns are focused upon the broader scheduling concerns of their station. . . Most planning, coordinating and promotional considerations are handled by College administrative staff The relationship is best described as cordial, but unenthusiastic [Respondent to SCEPAL questionnaire]

All of the station personnel we interviewed except one (who was from a community college licensee that had excellent and close relations with its institution) expressed a desire for greater interaction with the educational institutions in their area Somewhere there is a communication problem.

What do colleges need from their television station, besides the world? One respondent said "good PR, good air time, reasonable costs, cooperation on both sides, technical capability, accurate scheduling, not too much preempting time" To this we might add an understanding of college time and scheduling constraints

What do television stations need from colleges? No station respondent offered as clear and concise a list as the college respondent, but responses included an understanding of station constraints (particularly regarding air time, publicity budgets, and scheduling), cooperation in scheduling college-initiated courses for television, and delivery or arrangement for delivery of tapes on time and in good condition.

The desire and need of both stations and colleges for more communication and greater understanding can be approached in a variety of ways. A good beginning was suggested by respondents from both types of organization as well as by Scordan (see box): the designation of one person or contact in each organization who consistently handles such relationships. After the individual has been appointed, he or she would do well to visit the counterpart institution(s) to "walk through" their procedures and problems. Many problems, after all, are amenable to the articulation of administrative detail followed by discussion and a clear delineation of responsibility.

Some closely related and often mentioned types of problems were common to both stations and colleges but influenced by different needs and peceptions. These included the questions of air time (how much and when), scheduling, and promotion. Each pair or group of institutions must work these out among themselves, utilizing as much information about each area and each other as possible.

Other problems may be approached through cooperative efforts. The scheduling of PBS series with wraparound courses is one of these; the solution must come though the national PBS organization. Another is in finance; stations and colleges may find cooperation desirable in the purchasing and airing of telecourse series.

Finally, some of the problems that affect interaction are soluble only within one or another institution. If college faculty are so resistant to telecourses that they are unable to make or allow firm decisions, or if a station is incapable of technical proficiency, more interaction will probably not help.

The actual models of station-college cooperation we encountered depended primarily on station philosophy and funding. The colleges' approach was also important but not the determining factor. Each station operated in a different manner because each approached telecourses from a unique situation. The following descriptions of interaction, therefore, are simply examples taken from situations we encountered and are not exhaustive.

1 Station, a university licensee, determines broad-

DO'S AND DON'TS WITH COLLEGES

How to Succeed in Your Joint Venture

Don't expect colleges to understand the priorities and problems of broadcasters. Take time to explain your expectations in the acquisition and delivery of videotapes and related course materials.

Don't assume that any series with instructional overtones will discourage audience involvement; rating reports might prove you wrong. At least take time to preview course related video materials.

Provide colleges with as much lead time as possible by establishing broadcast times early. Colleges need time to gain curriculum committee approval, coordin- mpus and student services support, and promote course availability through college catalogues, brochures, and the mass media.

If a series with an instructional component is to be broadcast nationally keep the colleges well informed.

Provide station personnel with enough information about broadcast courses to respond to viewers who call with enrollment questions. Callers who are confused and frustrated will be less likely to view the series.

Do not preempt instructional programming unless absolutely necessary. One or two missed programs can alter the overall design of the course and alienate students.

Look upon cooperative arrangements between a broadcaster and colleges as a partnership, the means for expanding service to a common constituency.

Talk to each other, sharing common goals and expectations and seeking solutions to the problems you face.

—Sally Beaty

cast times to be allotted telecourses in consultation with community colleges. It povides some on-air publicity, and allows colleges to determine programs to be aired. Colleges pay lease/purchase costs for programs and air time.

2. Station, a community licensee, determines broadcast times to be allotted telecourses in consultation with colleges. It advises on publicity and programming (audience draw and competition from other programming), arranges videocassette duplicates of programs for previews, and participates in the local consortium. Colleges pay for programs and air time.

DO'S AND DON'TS WITH BROADCASTERS

Don't expect to make instant $ on telecourses but do expect broadcasters to want to make instant $ on your project.

Don't expect broadcasters to air anything but top quality productions. They want to attract viewers and you want to turn those nonstudent viewers into student viewers.

Provide reliable viewing statistics to help attain a time on the broadcasters' schedule.

Don't expect broadcasters to air telecourses on prime time. Do expect them to be aired at the convenience of the broadcaster.

Don't demand a time for telecourses; do suggest times for the courses with reasons why . . . and accept time provided.

Present a time schedule with brief reasoning to your broadcaster or operations department. Do expect it to be altered or hopefully agreed upon.

Don't "bad mouth" the times offered by the broadcaster. Do be satisfied with the times given . . . "some" time is often better than "no" time.

Don't expect your programs to be broadcast within a few months of your request. Do present a plan with at least six months set-up time.

Don't expect the broadcaster to make up record and shipping schedules. Do expect to make them available to the broadcasters and/or operations department.

Don't expect the broadcaster to locate your missing programs. Plan to find them yourself.

Do have one contact person for the station or network.

Be ready to make instant decisions regarding programming. Don't expect the broadcaster to make them for you even though they might.

Don't expect broadcasters to dub your programs for free or a fee. Do consider them Kings and Queens if they do dub your programs.

Be understanding. Don't forget how important the broadcast signal is to your project.

Don't ask for the "world." Do offer the "world" if you can provide it.

—Marlena Scordan

3 Station, a state licensee, allots air time, convenes meetings of college administrators to determine following year's programming and assists with promotion and utilization Colleges pay a charge per enrolled telecourse student to station.

4. Station, a state licensee, and colleges are represented on a Council for Higher Education, which, with tax support, reviews and determines programs to be aired, works with station programmer to determine air times, and assists colleges with publicity and utilization. Council and station pay for programs and air time.

5. Station, a university licensee, shares ITV staff member in joint appointment with Continuing Education Department. Station and university collaborate on producing courses. Station works closely with university and junior colleges in determining air time and programs, and advises on publicity and utilization. Community colleges pay for programs and air time, university does not.

The basic model will, to some extent, determine the quality and scope of interaction between stations and colleges although that interaction obviously can be enhanced through various strategies.

Needed research: *Are there "best" models? Are models of interaction determined primarily by funding? Can they be changed without major changes in funding patterns?*

X.
FACTORS THAT HELP OR HINDER STATION-COLLEGE CONSORTIA SERVING ADULT LEARNERS

- Consortia can defray costs and pool resources for participating institutions.

- Common elements shared by successful television consortia include: a focus on the needs of the "distant learner," commitment from institutional executives, clear purposes and governance system, firm financial and legal bases, high quality course materials, mutual respect and understanding between colleges and station, a system for sharing resources and information, and policies which facilitate access, flexibility and outreach.

by Penelope L. Richardson, Ph. D.

Authors Note

A major benefit of telecourses is that they can be used with a large number of students. Indeed, the greater the number of students involved in a broadcast series, the more cost-effective it becomes. Conversely, if colleges and/or stations must pay for a telecourse that engages only a small audience, the per-student expenditure of time, effort, and money may not be warranted.

Growing numbers of colleges and stations have found that television courses "work" better if they cooperate with one another. This cooperation, usually in the form of consortia, can be of several kinds. It may be directed toward using programs, producing telecourses, or both. It may involve varying numbers of two-year colleges, four-year colleges, stations, or other organizations. Methods of finance and organization may differ. All, however, hope to achieve certain goals and most face common problems.

The potential benefits of consortia are obvious. Consortia provide a larger resource base and larger numbers of potential students. Institutions that work together can defray the cost of purchasing and airing telecourses, cooperate on publicity, and work out means to reduce cutthroat competition for students. Consortia also can prevent duplication of effort.

Inevitably, however, problems emerge as consortia begin operations. Most are in the area of finance: How are institutions' costs compared? How can an institution be assessed most fairly in proportion to returns from (a) the consortium and (b) its income? What are the implications of differential tuition rates for the same course(s)? Others concern students: Do consortium members compete for students? Should courses be standardized in requirements and services? If they are not, how can they be represented to students, or compared for cost purposes? And many of these questions lead to others about institutional autonomy and integrity.

Dr. Penelope Richardson, Assistant Professor of Education at the University of Southern California, has prepared a report for this project on the factors that contribute to the success or failure of telecourse-related consortia. Her study is part of a cooperative venture with the project on community college telecourse use sponsored by the American Association of Community and Junior Colleges and funded by the Fund for the Improvement of Post-secondary Education. In this section we shall present the body of the report. Descriptions of methodology, consortia studied, and the next phase of the project together with Dr. Richardson's bibliography are included in Appendix G.

At its best, a consortium allows its member institutions to share resources, engage in complementary activities, and accomplish more than each could separately, while enabling each to maintain its own institutional autonomy. At its worst, a consortium may involve members in endless meetings, wrangling, and confusion, with little end product except a profound disillusionment with the laziness, selfishness, and lack of vision of other member institutions. To create and run a successful consortium requires political astuteness, organizational savvy, and interpersonal competence on the part of all involved.

When the consortium includes institutions of higher education, public or commercial broadcast stations, commercial interests such as publishers, and community agencies, and when the goal is to provide the adult "distant learner" with educational opportunities in the home or workplace, the problem is even more complex. Each of the above types of institutions has its own mission, constraints, ideologies, and perceptions of what is educationally sound, managerially efficient, and politically and financially feasible. Making it work is no easy thing.

This paper is about the factors that make consortia of stations and colleges successful in serving the adult learner, as perceived by the practitioners who plan, coordinate, or operate them. The factors are offered as a set of tentative conclusions about the necessary and sufficient conditions for success when success is defined as good management, sound educational practice, and political and financial survival. In order to develop them, interviews were conducted with coordinators of consortia, executives and instructors at colleges, and programming decisionmakers at stations who represent various types of consortia: well-established, new, successful, struggling, highly structured, loosely organized, producing, using, distributing, two-year, four year, continuing education, mixed. The purpose was to learn if common elements would emerge as the necessary and sufficient conditions for a consortium successful at producing and/or delivering televised instruction for adults.

The result was a list of eight factors that have been tentatively identified as helping or hindering consortium success. They were generated from the data supplied by these interviews although the respondents did not all see or name them in final form and sequence. They are reproduced here with the rationale for each.

A *LEARNER-CENTERED FOCUS. The total teaching-learning system must be designed and coordinated with the needs of the adult "distant learner" at the center.*

Television courses can't merely be added on to the regular system; they require a reconceptualization of who the learner is and what he or she needs in order to benefit from instruction. The system designed to serve the distant learner must have its own blueprint, or game plan, and that plan should spell out special processes for consortial administration, academic administration, target population assessment, in-service training for counselors and teachers ("course managers"), curriculum development, course design and development, delivery and support services, and research and evaluation, all in terms of the needs and situation of the adult learner.

Specifically, content and structure of course materials will be affected, with each course designed as a coordinated instructional system, all components (television programs, radio, study guide, text, tests, learning activities) working together to serve the same instructional objectives and to cause learning.

Local support services will need to be developed, for the amount of learning from instructional television depends at least as much on what happens at the receiving end as what goes into the program content and structure. *Involvement* (personal contact by phone or mail, discussion with friend or spouse, etc.) and *feedback* (grades, self-study quizzes, computer-graded exercises) are crucial.[15]

Similarly, administrative arrangements must be designed with the needs of the learner in mind, with information and recruitment materials easily available; television programs offered at times convenient for the learner; simple procedures available for registering, obtaining course materials, taking exams, and obtaining credit; and support services and instructional materials available at locally convenient "learner centers." All of these things are included in the factor *Learner-Centered Focus* of the total teaching-learning system.

B *COMMITMENT OF LEADERS. Key individuals at various levels, but particularly institutional leaders, must believe in the value of the enterprise and must make a personal commitment to it.*

Most interviewees agreed that making a consortium work requires a high degree of executive leadership. It's hard work, and there's no automatic movement forward: progress comes out of the hides of the contributing members. Individuals with an open, pragmatic, task-oriented leadership style are required to guide the consortium at the executive level.

In the colleges, the president or dean of instruction makes the difference. He or she can provide incentives for faculty members, administrators such as registrars,

15 Ideas from Leslie Purdy's "Telecourse Students: How Well Do They Learn?" *Focus*, Volume II, #2, 1979, were helpful in developing this section.

and technical staff to cooperate and assist in the development of the concept. At the stations, the station manager or program director provides the leadership in setting station priorities. On each campus a representative is needed to allay faculty fears about course quality or their own survival, and to provide guidance in ways of working with students. The style of the consortium coordinator is also important. He or she must inspire trust; his or her judgments and actions must be respected by the consortium members.

Commitment, in short, is required at all levels, but especially at the executive level. *Commitment of Leaders* is the factor that focuses on this important aspect of success.

C. *GOVERNANCE. Consortium/institution authority relationships must be clearly delineated and a management system developed for implementation of decisions.*

Consortia vary in the degree to which they are structured, but several themes ran through the interviews I conducted: the importance of a clear, unified purpose for the consortium; the necessity of centralizing some functions through an administrative coordinator with both the authority and responsibility to carry out decisions; the importance of appointing individuals to the consortium council with the clout to make decisions; the necessity for different levels of governance mechanisms to exist for communication and follow-through at various levels.

Most of the topics covered under this factor are management issues; given a learner-centered focus, and a commitment on the part of leaders at all levels, what structures need to be in place for the consortium to operate? These are the questions addressed in the factor called *Governance.*

D. *STABILITY. A firm financial and legal basis for operations must be established that allows for long-range planning and development.*

Interviewees agreed that the success or failure of a consortium might well depend on the method and stability of the financing. Whether cooperating colleges and stations are public or private, state-supported or grant supported, has a direct bearing on the method used to underwrite the television project.

The importance of establishing an equitable system of financial assessment was stressed. Considerations such as the members' ability and willingness to pay the financial incentives for participation, and the state pattern of funding were mentioned.

The security and freedom from liability available through having an established legal base was weighed against the possible loss of flexibility. The importance of a written constitution and bylaws was mentioned by several.

In short, a consortium that produces or uses television-centered courses is a complex entity, and for projection, planning, and maintenance to be possible, a firm financial and legal basis is required. The conditions whereby this is possible are summed up in the factor *Stability.*

E. *QUALITY OF INSTRUCTIONAL MATERIALS. Course materials developed and used must be excellent in learner appeal, academic content, production quality, instructional design, and flexibility of use.*

Quality is still a concern to all of the interested parties. Station people want to be sure that television will be used for what it can do well, and they don't want audience ratings to drop because of pedantic pedagogical approaches. Academics want substance and rigor. Instructional designers want materials designed to enhance motivation, participation, persistence, and learning on the part of the distant learner. Marketers want to be sure of a variety of uses, local and national.

The issue is relevant to both user and producer consortia, and it seemed important enough to be made a separate factor. *Quality of Instructional Materials* is the factor that concerns itself with the educational product.

F. *POSITIVE STATION-COLLEGE RELATIONSHIPS. The relationship must be based on mutual self-interest, mutual respect, understanding of each other's priorities and constraints, and shared commitment to the learner.*

Many people interviewed felt that the most important attitude on the part of all involved is one of openness and willingness to see the other person's point of view and to problem-solve together. A few educators feel that public television stations' lust for prime time has overtaken their sense of social responsibility. A few public broadcasters feel that the educator's disdain for the crassness of marketing makes a holy mission of dullness. But in those settings where successful station-college relationships have been established, the cooperative attitude prevails. From commitment at the top to reliable carrying through on nitty-gritty details, all interviewed agreed on the importance of the factor *Positive Station-College Relationships.*

G. *SYSTEM LINKAGES. A communication/clearinghouse system must be established between levels of governance (institutional/state/federal) for sharing of resources, information, expertise, and political support.*

This factor was identified as something not presently in existence, but badly needed. Many people expressed the belief that they would get more mileage from their individual efforts if there were a more coordinated set of regional and national relationships. One "bad exam-

ple" cited by several interviewees was that so many humanities courses have been funded and developed, apparently each unknown to the other, while badly needed subjects such as basic skills have been largely neglected.

Another concern was the need for some national means of data-gathering, so that the case for television-centered learning could be made more effectively. Better data on which to base course design decisions was also mentioned.

Understanding the parts-whole relationship of their efforts and having access to information and expertise underlie the comments that were built into the factor *System Linkages.*

H. *SUPPORTIVE CONTEXT FOR DISTANCE LEARNING. Policies at the local, state, and federal level must facilitate access, flexibility, and outreach.*

This factor is a mixed bag and includes situations at various levels that could prove constraining if conditions were wrong and facilitative if conditions were right. The local climate, and the degree to which college and station have established collaborative relationships with other community agencies and groups, is significant. Policies at the institutional, state, and federal level are significant, for they either create or remove barriers: financial, admissions, assessment, credit. Particular regulations or practices may also be significant: the teachers' union's contractual arrangements regarding distance learning or the station's union regulations for teachers who perform on-camera.

Rather clumsily named, and definitely a miscellaneous assortment of policies, practices, and political conditions, the factor *Supportive Context for Distance Learning* describes the climate in which the consortium operates.

Author's Note

Subsequent to this report, Dr. Richardson tested these factors in a survey for the Adult Learning and Public Broadcasting Project of the American Association of Community and Junior Colleges, under a grant from the Fund for the Improvement of Post-Secondary Education.

The respondents ranked the eight factors listed above in the following order: Quality of instructional materials; station-college relationships; commitment of leaders; learner-centered focus; supportive context for distance learning; governance; stability; system linkages. Dr. Richardson summarized this data as follows:

"The priorities make perfect sense. First, they tell us that instructional materials of excellent quality are needed if distance learning is to be a viable way to reach adult students. Broadcasters want to be sure that television will be used for what it can do well, and they don't want audience ratings to drop because of pedantic pedagogical approaches. Academics want substance and rigor. Instructional designers want materials designed to enhance motivation, participation, persistence, and learning on the part of the distant learner. Marketers want to be sure of a variety of uses, local and national.

"Second, they need positive relations between stations and colleges, for only within a climate of shared interest is the delivery system available. 'Positive relations' are mainly the responsibility of the executive at the station level.

"Third, they need commitment of leaders at all levels, leaders whose time, money, and resources must be behind the project for it to work. From statements of advocacy by policy makers to hard work on the nitty-gritty of implementation, commitment of leaders is crucial.

"Fourth, given good materials and support of station and college leaders, they need a system that focuses on the learner and on his or her needs for personal and administrative support as a part of the teaching-learning process. Learning is ultimately a dialogue, and that dialogue must be part of the delivery system.

"And fifth, they need a good governance and management system so that this complex set of relationships can work and the nitty-gritty tasks can be accomplished.

"Other factors, less important, are part of the total picture: financial stability, a positive context for distance learning, and good linkages between the parties involved. These are the factors that staff members involved in this study believe are significant in successful station-college collaborations" (Richardson, 1979).

XI.
TELECOURSES: BENEFITS AND PROBLEMS

- Major benefits to the colleges include: telecourses reach new audiences; they draw new students to on-campus courses; they offer alternative learning approaches.
- Major benefits to the stations include: telecourses reach new audiences; they perform a public service; they provide diversity of programming.
- Major problems to colleges include: faculty are threatened by telecourses; telecourse enrollments are difficult to predict; quality telecourses are sometimes not available.
- Major problems to stations include: lack of sufficient air time; colleges expect unreasonable air schedules; telecourses place a burden on station staff.

Over the years a body of conventional wisdom about telecourse benefits and problems has appeared. We presented a list of these to respondents and asked "How important is this (benefit or problem) to your operation?" The responses were often lengthy and not always those we had anticipated.

The lists, with our comments, appear below. They are ranked in a rough order based on our judgments concerning their overall importance after the interviews were completed. Taken together, they comprise many of the "whys" and "why nots" of institutions and telecourses.

BENEFITS: COLLEGES

1. Telecourses reach audiences that would not otherwise be able to attend college. housewives with small children, handicapped individuals, senior citizens, distance learners, etc.

An overwhelming majority of respondents felt this was a very important benefit of telecourses. One dissenter noted that many of these students would be able to obtain an education anyway, but that television made it easier for them.

Few of the respondents had a feeling for the number of people whom this would affect and we found it difficult to distinguish between rhetoric and reality in their responses. Perhaps they did also. The surveys that are available from the major (mostly community college) telecourse users indicate that, indeed, a fair proportion of the students are housewives and that a few handicapped are enrolled, but they also indicate (with the exception of the UMA surveys) that as high as 70 percent of the students in telecourses are *also* enrolled in on-campus courses. In some cases—Nebraska and Arizona, for example—distance really would have prevented some students from pursuing further education. In most places, however, physical distance could not be considered a factor.

> Needed research: *What proportion of telecourse students could not attend college otherwise? For what proportion is attendance significantly easier? How do we weigh these in determining the value of telecourses to society?*

2. Telecourses reach audiences that would not otherwise want to attend college. re-entry students; students not aware of educational opportunities and their access to them.

This was closely related to another aspect:

Telecourses draw students into the regular program. Students take telecourses successfully, then become regular, on-campus students.

A number of major telecourse users have said that telecourses appeal to the "re-entry student"—typically a housewife who has had some college, would like to return, but is afraid she cannot make the grade anymore and/or fears exposure to a "gang of unruly, self-confident eighteen year olds" in a classroom.

Four-year institution reactions to the first statement were favorable but mixed. Only one, which used continuing education as a recruiting device for high school students, believed the second was true. Two year in-

stitution respondents almost unanimously said the first was a very important benefit from telecourses. Major two-year telecourse producers said the second was true in their local programs.

The only institution we have identified that is able to supply hard numbers supporting this belief was the University of Mid-America. It conducted a longitudinal study of students from Nebraska who were enrolled in UMA courses. A total of 339 individuals were contacted. Wayne Hartley (1978) summarized the results of this study as follows:

> Of the students who participated in the first three offerings of SUN program, 49 3 percent have continued their education in some manner since that time.
>
> Of those students that continued their education, 44 percent credited the SUN program for that decision. . . .
>
> Of the 27 percent of the sample that were deemed eligible for attempting transfer of course credits (enrolled for credit, completed the course and then continued their education), 43 percent actually did so; but not all of them were successful.
>
> About 10 percent of the sample are in degree programs now. This is 25 percent of those that said they continued their education after participation in the program.

Re-entry and recruitment could be an extremely important aspect of telecourses, both socially and from the point of view of indivtdual institutions. It might be worthwhile to use it as an approach in providing prospective students with information about telecourses and in convincing administrators that telecourses are worth their while.

> Needed research *To what extent does fea, of "loss of face" or failure prevent potential students from using educational activities? How do we identify such learners, and what are the best ways to meet their special needs? Are telecourses suitable as a way to "try-out" higher education?*

3 Telecourses offer flexibility of scheduling or the ability to schedule classes at off hours and the ability to repeat programs for students who might miss a lecture.

Reactions to this benefit were mixed, but generally favorable. One respondent added that students were able to hear television lectures twice. Studies have indicated variously that (1) many students watched more than one airing of a lesson and that (2) few students watch repeat programs. Qualitatively, the response to this was not as enthusiastic as the response to, for instance, the first listed benefit Reactions tended to be laconic and seasoned with a flavor of "Motherhood and Apple Pie."

Ir fact, the "flexibility" of scheduling available through the use of broadcast television may be a chimera Telecourses, of necessity, are restricted to set times of day by the stations; the degree to which student needs, if they are known, are taken into account by programmers varies widely. Where programs are repeated, however, not only is there the chance for some students to review them a second time, but there is also a built-in increase in the number of students to whom they are available/convenient.

4. Telecourses are a pacing device.

At least two studies (Purdy and Icenogle, 1976; Chamberlain and Icenogle, 1975) have indicated that regularly scheduled television programs assist students to do their work on a more consistent basis than occurs in the traditional correspondence study courses

Telecasts alone, however, have not always been sufficient to bring retention rates to those in on-campus classes. Student retention was lower than on-campus retention in most two-year institutions queried. (This question was added to a revision of the questionnaire, and we do not have data from all the institutions.) The greatest attrition rates were in California; Coastline Community College has noted in Orange County a phenomenon of students enrolling for a large number of courses, in effect sampling them, then dropping those in which they are less interested. This is probably directly related to the fact that the courses are free.

All the four-year institutions that were asked about telecourse retention of students said it was "relatively high." No one supplied specific numbers. This response may be related to the place of telecourses in Continuing Education Divisions where attrition rates may generally be high, or it may be the result of (a) higher fees; (b) a slightly older student population; or (c) a more highly self-motivated student population.

> Needed research. *What relative roles do the following play in telecourse retention and attrition: financial commitment from the student, regular telecasts, student characteristics, student support services? What policy implications would information about these factors hold?*

5. Telecourses offer an alternative learning approach.

An overwhelming majority of respondents felt this was an important benefit of telecourses although a number subsequently qualified their response: It was a benefit only if the television programs were "good."

The question of the ways in which/whether students learn from television is one that we have in large part excluded from this study; it is a topic that is not yet fully explored. As we learn more, the exact role of television in the overall learning process and to whom it appeals will be important to both telecourse producers and telecourse users.

A related question elicited similar responses.

6 Telecourses offer visuals for processes and information better conveyed visually than in words.

Most respondents at both types of institutions felt this was an important benefit of telecourses, although

several individuals qualified their answers "It should be greater"; "To date we've put old wine in new bottles"; "We need to rethink the programs and become more sophisticated."

Although not discussed at length by any of the respondents, the present format of the major telecourses—a sizeable number of programs shown once or twice weekly over a semester—probably mitigates against the most creative possible use of air time. The need to produce programs of uniform length for each lesson results in "filler" material for information that could be more easily put in print, and may slight areas that would benefit from fuller video treatment.

7. Telecourses make money. Is this true and is it important to you?

This question was discussed at length in Section VI. Here we shall limit ourselves to a straightforward reporting of responses to this as a benefit (Table 5). This report should be qualified by the fact that during the first interviews our question was ambiguous. A few people interpreted it as "should" a telecourse make money but most looked at their balance sheets.

8. Telecourses stretch faculty resources—i.e., allow a faculty member to handle more classes/more students.

Of ten four-year respondents, six felt this was not important. All of these operated from Extension divisions and may not have been speaking from a total institutional perspective. Two felt it was quite important.

Table 5. Do Telecourses Make Money and Is It Important to You?

	Quite Important	Somewhat Important	Not Important
Four-year institutions	1	3	6
Remarks	"Would be nice if it did." "Hopefully, but in fact, no." "We only offer telecourses because of administration pressure"	"Don't"	
Two-year institutions*	7	4	0
Remarks	"Probably" "Ideally speaking."	"For the state"	

Remarks not tied to a response in any of these categories were "Course by course"; "Not a part of telecourses"; "They do break even—they even generate enough revenue to meet institutional costs"; "That is not the primary reason to offer telecourses"; "We offer them to serve students"; "Not any more"

*Includes more than one respondent at some institutions

Both of these were also Extension divisions, but one dealt with specialized subjects and had indicated that telecourses augmented faculty resources in those areas; the other dealt with on- as well as off-campus students.

The special position of Extension and Continuing Education divisions and their lack of full-time faculty could, as we noted, have skewed these responses. The junior and community colleges might logically have been expected to react more positively to this benefit. In fact, more did than didn't—but a good number (four of eleven institutions) still felt telecourses did not stretch faculty resources, and several were not sure.

In some cases—Miami-Dade, Dallas, and Coastline where telecourses are part of an Open-Learning division on a separate campus—the reasons for affirmative responses were clear. Telecourse faculty usually carried higher student loads than regular faculty. One person did note that the faculty member was *over* compensated after a certain number of students enrolled, and another remarked that this was not the primary rationale for telecourses, but that it had happened.

In the other cases, however, there were no clear-cut explanations for two-year responses. Responses did not seem to be related to the role of telecourses in institutions, the method of payment, or any other immediately identifiable factor.

Our conclusions from these conflicting reports are that "stretching faculty resources" is not an important factor in Extension and Continuing Education divisions, probably because they have no regular faculty but work on a course-by-course basis, and that where it plays a role in two-year institutions, it is often a result of happenstance and circumstance rather than calculation. Nevertheless, from a total institutional picture, the role telecourses play in augmenting faculty resources could be substantial if the institution felt this was a desirable goal.[16]

9. Telecourses free faculty time for other, nonlecture interaction with students.

The three institutions that responded affirmatively used telecourses either as an adjunct to in-class instruction or as a part of a regular curriculum. Most institutions paid faculty on an overload basis and added telecourses to their regular duties.

The use of extra faculty time, where it existed, was generally for telephone consultation. Very little face-to-face tutorial interaction occurred even where telecourse students also took on-campus courses and the telephone interaction was often limited to procedural questions. In some cases (cf. above) larger than normal numbers of students were assigned to faculty members and in many, primarily two-year, institutions where computer-

16 One comment from a reviewer was that community colleges "don't want to claim it because of union reaction"

graded objective tests were the rule, no original opinion or thought, either verbal or written was requested from students.

In a time of falling enrollments and pinching belt buckles, it is perhaps unrealistic to expect institutions to use the relatively expensive medium of television without reducing another expensive commodity, faculty time.

10. Telecourses offer subjects for which regular faculty are not available/not prepared.

Most institutions, both two- and four-year, said this was not important. Of the seven that indicated it was either somewhat or quite important, four added that it was a problem rather than a benefit. One administrator stated, "Our faculty believes it is prepared to teach anything."

Some educational systems using telecommunications delivery systems have been specifically formed to augment the resources of individual institutions—TAGER in North Texas and IHETS in Indiana are examples. This clearly has not been a role of broadcast television courses and perhaps cannot be. In most institutions there is a need to tie telecourses to existing courses listed in a catalog or central course bank (cf. Section V). This automatically implies that there are qualified faculty available to teach them—or at least a large proportion of them.

> Needed research. *Can telecourses be developed that augment existing faculty resources, fit within an administrative adoption structure, and have broad enough appeal to generate satisfactory enrollments? Is broadcast television suited to such courses or should they be available primarily through alternative delivery systems? What means could be employed to furnish academic credibility to user institutions?*

11. Telecourses provide a means for bringing students into contact with books.

The rationale for this question was the assertion that viewing the program arouses a student's interest and leads him or her to read more, the assertion was made initially in conjunction with the wrap-around general viewership courses. The response was, in most cases, a puzzled expression.

After some thought, 8 of 24 respondents felt this was "Quite Important," 10 felt it was "Somewhat Important," and 6 felt it was "Not Important." Several said, musingly, "It is true that reading is a part of the course"; one said, "Our students are well educated and read anyway" Perhaps the most telling comment was, "Huh?"

12 Telecourses provide publicity for the institution/district

This was a positive point according to most respondents One noted that the division received little financial support for telecourses but that the University President would frequently mention them proudly.

OTHER BENEFITS: COLLEGES

A number of individuals reiterated or restated previously mentioned benefits at this point; some added new benefits. The responses were as follows:

Four-Year Institutions

"Even if a student doesn't enroll for a course, the television programs provide a public service."

"I have no documentation, but they provide motivation to study."

"The novelty of telecourse is audience captivating."

"They provide a student a way to fail without repercussions."

Two-Year Institutions

"Have served as a motivation device to (a) get people to print and (b) get people on campus."

"Direct correlation between incidence of media and completion—completion is much higher when we use media."

"As a motivation device, television is very important; as an inspiration it is important; and as a learning device, we're not sure."

"It is a recruiting device. Statistics are not available but instructors estimate the figure is significant."

"Because of the system, students with different learning styles benefit."

"They may draw students into the regular program, but we are not sure."

"They provide segmented pc ions for other courses."

"Convenience for the student."

"They save the student from $50–200/class/semester. Gas, wear and tear on auto, child care, and hours of time not spent in driving."

Finally, with some embarrassment, we want to report a last, possible benefit. We need to thank Ronald Gross for raising it, although the final formulation is ours, not his It is one that had not occurred to us and was not mentioned by any of our respondents: Telecourses can provide administrators, faculty, and students with examples of excellent instructional systems.

PROBLEMS: COLLEGES

1. Telecourses threaten faculty, either in their job security or in their perception of a "quality" education

One two-year administrator summarized the feelings of a majority of the respondents: "In fact they do not, but the faculty members' perception is that there is a threat." A number of other respondents added that faculty members used to feel threatened but were less so as their familiarity with the telecourse system grew.

The fewest problems, interestingly enough, were reported by four-year institutions.

Telecourses are probably *not* a threat to faculty positions in those places where they are used on an overload basis and are viewed as an adjunct course rather than as a regular part of the curriculum, or in those institutions where they are a regular part of the curriculum and are taught by regular faculty but are not used to increase numbers of classes/students per faculty member. There are institutions, however, that use telecourses as an important part of the regular curriculum and hire faculty only on a part-time casual labor basis. In at least one of these, questions have been raised by faculty unions in the district about telecourses' appropriateness and legitimacy, and whether they are pulling students out of classes.

When it occurs, resistance has been manifested primarily in the adoption of telecourses.

> Needed research: *Given a high unemployment rate among faculty members and the desperate need of educational institutions to increase revenues while cutting costs, what is a socially and economically optimal model for hiring telecourse faculty?*

A distressing number of responses to the question of faculty resistance reflected considerable hostility toward faculty members: "They are just a bunch of prima donnas"; "They are either egomaniacs or insecure"; "They don't understand, and don't want to change." This type of response was distributed fairly evenly among two- and four-year institutions. Almost nowhere did we sense either a belief or a feeling that faculty members might have justifiable concerns about telecourses.

The actual role of the faculty member in a telecourse varied tremendously among institutions. In most cases, the four-year institutions gave basic course materials to a faculty member who then did as much or as little with them as he or she pleased. Both *The Ascent of Man* and *Classic Theatre* studies identified a wide variety of ways telecourses were used, and found that a number of individual faculty members or institutions had developed extensive materials to complement or replace telecourse materials. This was borne out in our research

A number of two-year institutions followed this model, but others departed from it. Some saw the faculty member's role primarily as a resource person who used telecourse materials and tests but had little intellectual responsibility for modifying or supplementing their content.

We did not enquire about faculty satisfaction with telecourses A study conducted for the Maryland College of the Air reported that "Most faculty found teaching a TV course less work than teaching other courses, but also less satisfying personally and professionally" (Rhines, 1977, p. 18). Another found "The principal disadvantage of TV courses cited by instructors is that productive interaction between students and faculty members is limited. The synergistic effect of learning reinforcement which is typically a catalyst in classroom relationships among fellow students and instructors is absent in televised instruction" (Gaunt, Engelman, and O'Brien, 1977).

> Needed research: *Two areas of enquiry spring from this model: (1) The changing nature of the role of a faculty member and its implications for (a) personal satisfaction, (b) preparation needed for it, and (c) its relationship to normal classroom roles. (2) The implications of such a model if widely used on a national basis.*

2. Is inability to predict telecourse enrollments a problem?

Five of eleven two-year respondents and five of eight four-year respondents said this was a very important problem. Two respondents said it wasn't because they had had enough enrollments to have classes "go." Two more said it was somewhat important, one of whom added that it was difficult to predict enrollments in any new course, whether or not it had a television component.

According to publishers' figures, most institutions have had great difficulty in predicting enrollments for both wrap-around and "made-for-television" telecourses. Returns for books have run as high as 50 percent, indicating that neither the professor/administrator planning for the course nor the campus bookstores (which often scale orders for over-optimistic professors down to more realistic terms) were able to approach correct guesses on enrollments. As may be inferred, most of the error is in overprediction, although it has also run the other way. Coastline (one of whose respondents indicated that this is not a problem) underordered for *The Shakespeare Plays* by over 200 books.

The key to this inability probably lies in the "newness" of telecourses and the as yet unknown parameters of the telecourse audience within each locale, there are too many variables to allow for accurate prediction *even* in courses *for* television at this time (Dallas, for instance, has a 25 percent return on its books, and it is low partly because within the district, which accounts for a very high volume and which has used telecourses for several years, predictions are relatively good). Over the next few years these courses should become more predictable; wrap-around courses, by their nature, are likely to remain problematical. This may be, as we indicated in Section VI, a difficulty of some magnitude for continuing relationships with publishers.

Needed research: *Can we develop a better means of predicting enrollments for telecourses and other types of post-secondary education? Is there a qualitative difference in methods applicable to different educational systems?*

3. Is lack of suitable courseware a problem with telecourses?

Among the four-year institutions, two respondents said it was "Quite Important," two said it was "Somewhat Important," and the remainder said it was "Not Important" except for one unclassifiable comment, "I'd like to see more, but I don't know what areas I'd like to see it in."

A clear majority of the two-year respondents felt it was "Quite Important." Two of the three who did not feel it at all important were major producers.

The lack of a strong response on the part of most respondents from four-year institutions probably underlines the uncertain nature of predicting success for general interest non-degree courses, and, possibly, a belief on the part of those respondents that they were unable to influence telecourse production.

4. Is difficulty in using an unfamiliar educational system a problem for (a) administrators, (b) faculty, (c) students?

Four-year respondents were evenly divided between "Somewhat Important" and "Not Important." Two comments were: "With students, otherwise they're not a problem." and "The kids are O.K., the administrators are the problem."

The two-year respondents were evenly divided between "Quite Important" and "Not Important." Several mentioned the time it took to "educate" faculty and administrators in the use of telecourses.

The division is consistent, to some extent, to that noted in response to Problem 1. It probably also reflects the fact that telecourses were tied much more closely to the regular degree curriculum in the two-year institutions in our sample, as opposed to the relative ... omy of a continuing education or extension ... a four-year institution. This problem should ... with time unless (a) the problems are so great ..... e courses are abandoned, or (b) there are problems with telecourses that are not tied to novelty.

5. The amount of administrative time needed to offer telecourses in internal preparations, relationships with stations, or to supply services to off-campus students – is significant enough to be a problem.

Although responses were mixed, a number of institutions, both two- and four-year, felt this was an important problem. None of them responded to the proposed individual categories. Two said that it was simply necessary to accept the fact that administering telecourses took time.

For most of the institutions, telecourses were a type of course that had not been offered on a regular basis over a period of time. One respondent, indeed, stated that using them wouldn't be a problem if he offered telecourses regularly. Knowing as we do that any pattern change adds administrative time above and beyond that actually necessary to complete discrete tasks, this problem may also be alleviated to a great extent over the next few years. Additionally, the suggestions for procedures and relationships that will be made in the SCEPAL Executive Development Seminar material will, we hope, contribute toward a more efficient, easy utilization of telecourses.

6. Telecourses are difficult to schedule.

Respondents who used wrap-around courses or had to make their own arrangements with television stations and did not have a good ongoing relationship with them answered affirmatively. Others felt this was not a problem.

7. Not knowing whether you will be able to use a telecourse again in the future is a problem.

Institutions responded affirmatively with regard to wrap-around courses in some but not all instances.

8. Uncertainty about or lack of off-air taping rights is a problem with telecourses.

All institutions that did off-air taping found this a problem with wrap-around courses.

These problems have been particularly associated with wrap-around courses and none of them is new. We have noted the PBS Adult Learning Task Force recommendations on scheduling. Concerning off-air taping and use of materials it states "Of paramount importance to the fullest development and use of adult learning systems is the resolution of the many complex issues relating to ownership of the programs and related materials and the ability to make them easily available for use" (Preliminary Report, February, 1979). The issues involved are, primarily, related to a nexus of copyright, permissions, and payment for off-air use or reuse of programs.

Needed research. *What should be the PBS policy in scheduling series that are used in this manner? What factors are involved in PBS decisions in this area? How do national policies relate to local stations' needs? What steps can be taken to simplify copyright and permission procedures for off-air use?*

9. Lack of control over content or its presentation is a problem in telecourses.

Most four-year institutions felt this was not a problem, a few felt it was somewhat important. A majority of two-year respondents said it was either very or somewhat important. These varying levels of responses might be related to the larger area of discretion given faculty members over telecourses in four-year institutions.

10 Lack of preparation time for a telecourse is a problem.

All respondents felt this was a problem with wraparounds (cf. Problems 6, 7, and 8 above), and most felt it was a problem with all courses. Exceptions were (a) those institutions that produced most of their own courses and controlled their airing and (b) those institutions in a state system that scheduled programming sufficiently early for the colleges to prepare for it.

OTHER PROBLEMS: COLLEGES

The respondents were more creative in this area than in "other benefits" and raised some problems concerning telecourses that may have profound implications. One of these was the limited number of broadcast hours, a problem that we posed to stations and that will be discussed below. Another was the lack of flexibility inherent in a telecourse.

A good classroom instructor watches the pupils in front of him or her and responds to them. If a class is a "fast" class, the instructor speeds up and, perhaps, adds some material; if the class is "slow," he or she reviews and reiterates material and, perhaps, drops some. There is no such flexibility in telecourses. The programs are telecast whether students are behind or ahead of them, or can move faster or slower. Books are also preset. The computer-based response systems being used by some community colleges offer "prescriptions" for learning but, nevertheless, students are still locked in to roughly the same measured tread. There is, concomitantly, little scope in practice for individualization in telecourses.

> Needed research: *Is there or will there be any means, perhaps through technological innovation, that will allow designers to introduce more flexibility and a greater capacity to respond to individual needs telecourse instruction?*

Several respondents mentioned administrative resistance as a problem; one underscored this by citing "a period of declining income and enrollment with a back to basics move." As a result of this, "the whole continuing education/open education area is in trouble." Television, technically speaking, can be used in "back-to-basic subjects," but probably won't be because "back to basics" usually means "back to basic teacher, blackboard, and room" as well.

Another respondent said that "students don't know how to watch television," a problem that has been recognized elsewhere. To date, responses to this problem by telecourse designers have been limited to printed admonitions. The U.S. Office of Education has funded projects in this area but they are also, to date, limited to print materials for the post-secondary level.

> Needed research: *Is it possible to teach students how to watch different kinds of programs on television through the medium itself?*

Two four-year institutions pointed to the competition from other schools in their areas as a deterrent to offering certain telecourses and a hindrance to securing acceptable enrollments. Another said that getting course materials in time was problematical. The latter, as is well known to producing institutions, is often a problem because telecourses often have tight publishing deadlines.

One individual offered the thesis that we were still in a "first generation" among television users. These people, raised with television as an entertainment medium, did not see it in the context of a worthwhile educational endeavor. His hypothesis is supported by a considerable amount of research. Jerome Lord notes a "general tendency of adults not to associate the mass media, and especially radio and television, with any protracted educational experience. This phenomenon is widely reported. . . ." He continues, to the probable relief of many telecourse producers and users, to say "What is also consistently reported is that both younger and older adults lose their reluctance toward or antagonism to the use of media in their instruction in direct proportion to their experience of media-assisted instruction. What is more, that experience tends to convince them that such instruction is not only as good as, but often better than, more traditional forms of instruction" (Lord, 1979, p. 33).

Other comments included: "students don't like the lack of interaction" (contrary to the results of a number of questionnaires in other locations); the expense of a telecourse, particularly when it is necessary to pay a royalty on each student; negative reaction to series in which the presenter has a southern drawl; credit transferability to degree programs and the fact that departments and faculty do not like telecourses to infringe on their "elective" time options.

BENEFITS: STATIONS

In general, the respondents from the stations perceived both fewer problems and fewer benefits with or from television courses. This was true for ITV personnel, programmers, and station managers, and presumably reflects the smaller "image" of telecourses in the station world.

1. Telecourses reach new audiences.

With four exceptions, including the commercial station, all respondents thought this was quite important. Several saw it as a publicity problem in terms of on-air promotion, because they believed their general audience, the recipients of that promotion, was a different group than their telecourse audience.

Much of the data we have (cf Section IV) indicates that the telecourse audience profile resembles the PTV general audience profile Whether the station response to this question is (a) based on wishful thinking, (b) reflects regional differences in data bases that do not appear in summary data, or (c) reflects a better knowledge of their audiences than we now have is incalculable at present.

2. Telecourses perform a public service

All of the station respondents except one rated this as quite important.

3. Telecourses increase memberships

This was not applicable to some stations because they do not solicit members, reactions from others were mixed but mostly negative One respondent said it would be nice if it did

The basis upon which the responses were made was usually the number of people joining the station during the times programs were aired, particularly during pledge weeks It is marginally possible that this could lead to an underestimation of the efficacy of telecourses as membership generators many telecourses are aired early morning or other times when it is difficult to phone in pledges because of other pressures, membership "pitches" are not usually as strong at these times as during "prime time"

4 The use of telecourses provides diversity of programming

One station dissented, the remainder were divided evenly between quite and somewhat important. However, general response, even when favorable, was lukewarm The feeling seemed to be, "yes, but there are other ways diversity could be approached as well."

Other responses concerning benefits from telecourses included "Fulfilling legislative mandates" (2); "We are a university station, and their goal is education"; "For license renewals" (2), "Recognizes needs of community", "How can you knock education?" Finally, one station manager said, forcefully, that telecourses fulfilled a public broadcasting priority and served an important educational purpose

PROBLEMS: STATIONS

1 Lack of air time is a problem for broadcast telecourses

Two respondents, one of whom was the commercial station said this was not important One respondent said it was a somewhat important problem, adding, "if you think telecourses are important, there is no lack of time" All of the other respondents felt it was quite important Further, it was clearly a major concern and may be the reason telecourses occupy as little of the station world as they do A number of station respondents talked at length about the need to use alternative delivery systems for education, some spoke of attempts to secure a second broadcast channel to facilitate an increase in educational offerings.

2. Telecourses preempt more rewarding programming.

Reactions were mixed, leaning toward not important. Perhaps the most telling comment was, "The answer to this question is subjective, it depends on how important you think education is."

3 Unreasonable scheduling requests from colleges are a problem.

Three respondents said this problem was quite important, one adding that they were sometimes accompanied by an attitude of "We decide and you flunkies should obey." One said "not anymore." The remainder felt it was not an important problem.

This problem seems easy of solution, barring obstinacy and pigheadedness: Colleges and stations need to communicate their concerns and obligations.

4. Staff time spent in answering questions or in liaison was great enough to be a problem in telecourses.

This did not appear to be an important systemic problem to stations. The three respondents who answered "Quite Important" were speaking from conditions that were peculiar to their stations and, in two cases, probably limited to a particular period in time. In a subsequent meeting of station managers and programmers (see Appendix A) the consensus was that wrap-around courses caused greater difficulties to stations than courses *for* television.

5. Requests for publicity cause problems.

Two stations indicated this was quite important, one (the commercial station, which complained that it needed more publicity requests and materials from the colleges rather than fewer) said it was somewhat important. The rest of the respondents felt this was not an important issue.

OTHER PROBLEMS: STATIONS

Other problems mostly pertained to the colleges' handling of telecourses or their interaction with the stations. Aside from this general concern, station responses did not lend themselves to grouping. "The bureaucracy in the university to which we are licensed—the procedural processes are time consuming"; "Funding -where to get money to create/purchase courses", "Keep telecourses alive in the colleges we are serving", "Time is a problem. We do not serve the student if he calls the television station", "Procedural problems—schools have an unreasonable expectation as far as stations giving lots of time for TV courses. They should also involve the station in choosing telecourses. A course might be inappropriate, have limited appeal, bad subject matter, or broadcast quality Courses should be modular, for instance, so that audiences can tune into any segment and find it interesting. Finally, the station needs to get fair payment for services ren-

dered", "Stations have to set ground rules when colleges come in, not play by ear They have to understand that a station serves many publics". "Colleges' lack of commitment and publicity, the time of programs and colleges wanting to change the schedule", "Colleges do not plan into the future "

As we have mentioned above, stations did not seem to have to make major changes in their ways of doing things or in their perception of staff roles in order to accommodate telecourses. Most education institutions did Telecourses neither seemed to cause stations the internal problems no. the soul searching they did colleges nor d ' they seem to promise the same degree of benefit

XII.
TELECOURSES: SUCCESS OR FAILURE AND HOW DO YOU TELL?

- Different criteria might be used by different persons. One learner-centered question might be, "Do the students enrolled in telecourses learn from them?" One administrative question might be, "Are enrollments good?"
- Stations and colleges consistently report "strong and effective leadership" as a necessary component of any successful telecourse operation.
- Not many colleges systematically evaluate the effectiveness of telecourses because evaluation is expensive and can put heavy demands on staff time.

How do we judge telecourse success? One set of learner-centered questions emerges immediately. Do the students enrolled in telecourses learn from them? Do they like them and will they enroll for others? Another set comes from administrators: Are enrollments good and do they continue to be good? Are faculty members satisfied with the experience of teaching a telecourse and willing to repeat it? In this section we shall summarize the studies addressing those questions not discussed elsewhere in this report, examine our respondents' characterization of factors that contribute to telecourse success, and review evaluation methods.

Decades of studies on the use of media in education indicate that it is, indeed, possible to learn from television. As Jerome Lord states, " . . . the place that media can hold in the general pedagogy is no longer in serious doubt. The problem arises in trying to define its best use, and to what purposes the best use can be put" (Lord, 1979). The questions now being asked center around learning styles and their relationship to television, the types of information best conveyed visually rather than in print, and the kinds of tradeoffs involved in costs, attractiveness, and learning. The questions Leslie Purdy (1978) raises are indicative of the sophisticated concerns of many people working with telecourses:

> 1. What is the effect on learning of different video treatments? Designers and producers try different techniques to teach different types of knowledge: animation, documentaries, dramatizations, lectures, discussion, etc. Do they work? Can we learn why and when to choose one style over another. More important, can we find out how entertainment and more didactic presentations are related to learning? One student, taking the child development course "The Growing Years," observed that there was "too much drama, not enough school." How school-like does TV have to be? . . .
> 2. There are important questions to ask about the learners. What is the attention span and concentration ability of adult viewers? Are students able to shift to active listening and watching compared to the more passive style they use for other TV programs? Are students who succeed in TV courses able to concentrate more fully? What is retained and for how long?

As television courses become more widespread, another question may emerge that is not now being asked in this context—although it is one that concerns most educators and is acutely important in the open-learning context. It is, What do the students learn? Do they learn facts, discrete information whose utility is ended with the last multiple choice question? Information that is useful to their lives and work? Attitudes? Problem-solving abilities? Different frames of reference for the familiar and the capacity to deal with the unknown? Like the profound questions associated with religion, these delve into a much debated and assiduously avoided area. Perhaps it is time for us to ask them again in order to formulate some educational objectives for the use of telecourses.

Do students like telecourses? They say they do. The University of Mid-America for example, has found that most students rate State University of Nebraska

telecourses as "good" or "excellent" overall. They may differ on various components and there is some variation—as could be expected—in their ratings of different courses, but the general profile is positive. In another way to approach this question, 89 percent of the respondents in the *Classic Theatre, The Humanities in Drama* study (Purdy and Icenogle, 1976) stated that they would recommend the course to family or friends.

Presumably, student reactions depend to a large extent on the quality of the telecourse. Only one study addressed that problem specifically (Rhines, 1977). It concluded, as might be expected, "Students work harder and learn more from well-produced TV courses than from poorly produced courses."

Exposure to telecourses seems to be a factor in developing positive attitudes toward them. A survey by KCTS in Washington state found, for instance, that "only 18.5% of the Channel 9 members (polled in a random sample) said they would enroll for credit in an interesting telecourse, while 82.1% and 73.5% of the Seattle Pacific and Western Washington respondents (who had already taken telecourses) said they would enroll." Almost two-thirds of the students enrolled in *Writing for a Reason* in Dallas (1976) said they would enroll for another telecourse; 89 percent of the *Classic Theatre* study respondents, and almost two-thirds of the UMA consortium students enrolled in the 1975–77 academic years gave the same answer.

Not surprisingly, not as many telecourse students seem to re-enroll as say they will. A number of respondents at institutions that had offered telecourses over a period of years said that their enrollments had not increased proportionately with the number of telecourses available, or that absolute enrollments had decreased slightly. The UMA survey cited earlier (Brown and Wall, 1978) also found that "Overall, enrollment in TV courses offered by institutions surveyed tended to be slightly decreasing during the 1975 1977 period." Some of the UMA survey institutions were the same as those covered in this report, but not a majority. Of the institutions we surveyed, one had a dramatic increase in Spring 1979 enrollments, others have not. Why, then, the decline?

A number of factors were suggested or are possible. There may be, as we noted above, a fixed telecourse audience, people who have taken the course they need are not replaced on a one-to-one basis.

It may, as one respondent suggested, be a result of repeating too many courses too many times, the increased 1979 enrollments at the one institution could be a response to that institution's offering several series that had not been aired before. This reason is not incompatible with the "fixed audience" theory.

Another respondent cited the lack of "blockbusters" major television series that were made into wrap-around courses, aired in prime time, and promoted extensively. If this is a reason for enrollment declines, it might tell us something about program quality, preferred viewing times, and the role of publicity.

The number of organizations offering "outreach" education is increasing as are the types of off-campus, nontraditional programs. Telecourses may simply be facing greater competition. On the other hand, they may also be gaining greater acceptance and they may show gains as a result of energy shortages.

Students may not like telecourses as much as they say they do; they may want other things from education than credit and/or information gain.

The declines in enrollment may simply parallel other declines in enrollment noted by educational institutions preparing students for degrees; it may have nothing to do with telecourses per se.

Finally, there may be no long-term decline in telecourse enrollment at all. The sample of institutions is limited, the period telecourses have been used is short, and there are too many other variables present (e.g., the economy; limited courseware) to allow us to draw firm conclusions.

> Needed research: *Is there a secular trend in telecourse enrollments and if so, what factors have contributed to it?*

Both this and the discussion in Section IV pertain to the question "Are enrollments good and do they continue to be good?" For many institutions they are and do—enough to indicate that there should be identifiable reasons in places where telecourses do not gather and hold enrollments and that in many cases the factors that prevent "success" can be overcome.

What about faculty? Are faculty members satisfied with the experience of teaching a telecourse and willing to repeat it? Christopher Rhines (1977), in his examination of the Maryland College of the Air, found that faculty generally felt telecourses were less satisfying teaching experiences than regular classes. The same faculty members, however, express willingness to teach other telecourses. Given the need of many post-secondary instructors to find employment or to augment salaries, finding telecourse instructors (or "learning managers") should not be a problem for some time unless these instructors must be drawn from an existing department.

"Why are telecourses successful in this area?" was a question that we asked (where appropriate) toward the end of each interview. The most consistent response from both stations and colleges was "strong and effective leadership." The heads of the "successful" institutions wanted telecourses to succeed and gave administrators the resources and authority to attain this goal. Penny Richardson identified commitment of leaders as

a key factor in the successful operation of consortia; it is clearly necessary for the successful operation of telecourses in a single institution as well.

The "other reasons" we encountered appeared in many forms and varieties, but centered on meeting the needs of particular audiences and on competent administration. Station responses included: "Properly identify community needs and target programs to those needs. Provide enough publicity"; "Involve stations with telecourses"; "Competent coordinator and station interest in education"; "Have good television programs with courses whose content is the same as is available in the classroom." Responses from the colleges included: "Strong student support services"; "Flexible faculty"; "Quality programs"; "Successful learning experiences."

Ronald Gross (1979 Appendix, pp. 4–5) summarized a somewhat different set of factors that addressed producers of Open-Learning materials as well as users. He reports that "Open Learning projects frequently attribute their success to the presence of several or most of these factors":

1. *Project addresses learners needs* that are specific, clearly-defined and well-researched.
2. *Project focuses on the learning process* rather than being fixated on technology.
3. *Project identified a potential student body* that was reachable, sometimes including those already being served through on-campus courses.
4. *Project provides credit and degree incentives* by making courses sequential and leading toward degree
5. *Project stresses high quality in courseware* to make viewing compelling
6. *Project adopted some existing courseware* to keep down costs of new production--but vigorously adapted it to meet local needs and style
7. *Project offers "TV+"* - Supports students learning through other materials
8. *Project includes a first-rate communications/support system for distant learners*
9. *Project decided on hardware acquisition wisely*, with good advice and stressing flexibility.
10. *Project cultivated institutional support* on the campus as a whole, or on the member campuses in the case of a consortium, especially among the top administration and the mainstream of the faculty
11. *Project developed good cooperative arrangements with broadcast outlets*
12. *Project is part of consortium* to cooperate for production and/or distribution to share costs, talent, promotional efforts, know-how, resources, etc
13. *Project has diverse sources of funding*

In a way, it is easier to summarize failure than success. Gross continued his listing with problems

1. *Inadequate audience* and marketing research, leading to wrong major production or acquisition decisions
2. *Inadequate promotion*
3. *Inadequate communication* and support services for distant learners.
4. *Inadequate staffing* for instruction services.
5. *Inattention to attrition* and student confusions
6. *Over-reliance on TV broadcasts* to carry the burden of instruction
7. *Unavailability of "front money"* for course production.
8. *Premature commitment to produce* or use a major course before sufficient experience has been developed in using telecourses and in working with the technology and the organizational problems.
9. *Failure to meet high quality standards* in broadcast materials.
10. *Failure to adhere to production schedules*, especially by faculty members involved in consortium-production enterprises
11. *Low marketability* of produced courses to other institutions.
12. *Poor communication* with the rest of the faculty or with cooperating colleges or clients.
13. *Failure to involve the disadvantaged.*
14. *Lack of suitable and/or predictable broadcast times.*

Similarly, Sally Beaty and Dee Brock have collected a list of common *mistakes* which are summarized below (Gross, 1979, p. 35).

1. Go it alone, you're paying for a prepackaged course so it should work, and if it doesn't, it will be less embarrassing if no one else knows about it.
2. Think of the telecourse as a quick and dirty way to make some money. Assume that putting the course on the air is 90 percent of the job.
3. Put someone in charge who doesn't have much else to do, and needs to gain a little visibility on campus—equally bad, assign someone who has too much to do. Don't bother any deans, let alone the president.
4. Don't do any special promotion to let people know about the offering
5. When interested students call for information, have them shunted around to different extensions by campus switchboard operators who don't know what they're talking about.
6. Ignore the probability that enrollments will continue to come in perhaps three to five weeks after the course starts—you can handle that problem when it comes up. And after *that* you can cope with the students calling nine weeks into the course asking if they have to do anything besides listen to the program to get credit.
7. At the faculty club, ignore those faculty members muttering about how telecourses are dehumanizing instruction and replacing live professors.
8. Don't worry about how many of the enrolled students really become involved in following the programs and doing the ancillary work
9. Fearlessly load up the instructor some colleges have put one teacher in charge of 800 TV students
10. Don't worry if many students seem to be losing their

way or not keeping up, it's their problem, and besides they'll never tell anyone so you can always find fresh students next term who don't know it's a swindle.

How does the institution *evaluate* the success of a telecourse? Beyond enrollments and students' grades, most do not; those that do use questionnaires. These, sent to students and faculty, provide a good deal of information but their use presents several problems. The first, of course, is that only a proportion of the students fill them in and return them, and for one course this inevitably results in a biased picture. Over a number of courses patterns emerge that can be used to give any single course evaluation greater validity. A skew in questionnaires that is less easy to correct is that if the college waits until the telecourse ends—a logical procedure in many cases—the students who have dropped out are rarely included. These are the students whose needs, for one reason or another, may not have been met by some aspect of the course. Surveys on reasons for dropping telecourses find that a majority of students identify personal reasons as the most influential factor in their decision. It is entirely possible, however, that this is a convenient excuse to save face for all involved. Still another problem with questionnaires is that they are expensive in terms of staff time and resources, especially if nonrespondents are sent reminders or called.

At the other end of the spectrum, evaluation through direct observation is difficult when the learners are as dispersed as telecourse students. Individual interviews are possible, especially by phone, but expensive. Dallas CCCD has done a considerable amount of work comparing the performance of television and on-campus students, but their environment furnishes a set of "laboratory" conditions that aren't replicable in many other places.

Last, but not least, most telecourse evaluations to date have been conducted by interested parties.

Needed research: *How can we develop better methods of evaluation and/or cheaper methods of evaluation? Would it be possible to develop some approaches that, although not perfect, would give administrators some idea of the reasons a telecourse (or any course) was successful or unsuccessful? What factors would be included?*

XIII.
ALTERNATE DELIVERY SYSTEMS

- Actual and potential telecourse audiences are largest for telecourses delivered by open-air broadcast.
- Alternative delivery systems include cable, ITFS (Instructional Television Fixed Service), satellite, videodisc, electronic blackboard, computer and computer-assisted instruction.
- Alternative delivery systems are especially useful in providing flexible program scheduling for telecourses. Greatest flexibility is provided by systems which can be used entirely at home by students.
- The costs of alternative delivery systems vary widely and need to be examined in relation to the size of the target audiences for a given program, cost of system installation and cost of program production as well as delivery costs.
- The costs to the student might vary from system to system.
- Alternative delivery systems are seen as one way of increasing the amount of broadcast time available for telecourses. Some systems permit educational innovation (such as two-way communication, programmed learning) and greater student control over his/her learning.

by Susan M. Graff

The advent of new communications technologies in recent years has altered the conception of "televised delivery" of courses for post-secondary formal and nonformal education. Although the broadcasting of television courses remains a viable means of servicing adult learners, it is important to examine the potential of such technologies as satellites, cable, Instructional Television Fixed Service (ITFS), and videodiscs to serve the adult learner and the implications of these technologies for the service providers, the higher education institutions, and the telecommunications entities. Many of these "nonbroadcast" technologies are currently in use, either singly or in combinations, for the delivery of television courseware to homes or learning centers. Present and potential future uses of such systems, as well as broadcast distribution, and syndication of courses, will be examined in relation to audience potential, program scheduling, costs, marketing, and possibilities for educational innovation. The nature of the public television system and the diversity of applications of the nonbroadcast technologies precludes universal generalizations about any of the aforementioned variables, and the following should not be taken as such.

AUDIENCE POTENTIAL

There are basically two ways of reaching an intended audience with televised programming, the "shotgun" approach in which, by delivering programs to all possible viewers, it is hoped that the intended audience will be reached, and the "point-blank" approach in which programming is delivered directly and solely to those interested or potentially interested in receiving it. The broadcasting of television courses employs the former method of reaching adult learners, whereas the use of nonbroadcast delivery systems usually entails the latter.

The audience potential for either approach often depends on the subject matter of the television course, the appropriateness of the delivery method to the content, and the nature of the intended audience itself. The availability of alternative types of delivery systems in a given locale also affects the audience potential for telecourses.

Broadcasting

Broadcasting is the most prevalent television delivery system in the country today, and the one to which people are most accustomed. By these virtues alone, the broadcasting of telecourses can and does attract a large

number of students. The broadcasting of post-secondary courses can be divided into two categories, the national feed of programs on public or commercial television, and the local broadcast of courses other than those fed nationally.

For the most part, television courses that are nationally broadcast are "general interest" programs that were not originally designed just for educational purposes but around which a credit course has been developed (*The Adams Chronicles* for example, or the commercially broadcast *Roots*). Series of this nature are intended to appeal to a general audience, and the course enrollees come from all walks of life; the shotgun approach to television delivery is appropriate for these types of courses, since it is difficult to target the potential student population. The national broadcast of a telecourse reaches potential students nationwide in one concerted effort, opening up the possibility of having a large number of enrollees for one course offering. For example, the two national PBS broadcasts of *The Ascent of Man* garnered over 45,000 students who enrolled for credit in the series course through local colleges and universities. The promotional campaigns that accompany a national broadcast series with a credit option enhance the public's awareness of the offering, undoubtedly contributing to the success of the series as a credit course.

Of course, many television courses are not suitable for national broadcast; they are either regional in nature or intended for an audience too specific and/or too limited to warrant a delivery system of this magnitude. These courses are often produced initially for a local broadcast and/or for syndication to other users with the same needs for materials.

Locally broadcast telecourses, either locally produced or leased/purchased from a syndicator, serve a variety of purposes with a varying audience potential. Depending on the region, the television station, and formal or informal assessments of the potential student population, locally televised courses can range from enrichment/general interest subjects to in-service training for specific professions. Of 156 public broadcasting stations responding to a 1975-76 Corporation for Public Broadcasting survey, 80 percent offered informal post-secondary courses, 70 percent offered formal post-secondary courses, and 50 percent in-service training programs (CPB/OEA, 1978). An example of audience size for the various types of courses comes from the South Carolina ETV network (a state network of six PTV stations and a statewide closed circuit system), which in 1977 had 6,000 students enrolled in formal higher education courses, 8,000 teachers in in-service courses, 19,000 students in medical education courses, 3,500 in law-enforcement training, 17,500 students in GED and similar programs, and 53,000 business professionals in job-related programs (Carlisle, 1978). As with national broadcast, the local broadcast of telecourses delivers programming via the shotgun approach, reaching the potential student by reaching all viewers with courseware. Many television stations do not have the amount of broadcast time to devote to higher education courses that the South Carolina ETV network seems to, and for the more specific audience programs (such as the medical or business course) a nonbroadcast delivery would probably be more feasible and more appropriate. When there are specific target audiences, it is hard to justify allocating broadcast time to serve them with courses even with the number of students South Carolina reports; their needs for particular information services can be met by delivering programming directly to the students rather than to every television household.

Cable

There are approximately 4,000 cable companies in the United States today, serving 9,000 communities and reaching some thirteen million subscribers (Broadcasting, 1978, p. 32). Twenty-two percent of all television homes now have cable, and cable saturation is constantly increasing. The advent of pay cable (Home Box Office, Viacom, etc.) has led to increased numbers of channels in many markets with more potential for diverse programming services and may be the key to reaching the 30 percent national cable penetration considered to be a "significant milestone" by the industry (Gunn, H., 1978). Cable's broadband technology can offer a wide selection of channels (a minimum twenty-channel capacity is required for new systems in major market areas), which can become an important resource for educators in cable-serviced areas.

The 1972 *Cable Television Report and Order* (CFCC, 1972) required cable systems in major markets to maintain "at least one channel each for public, educational, government, and leased access," and more recent rulings require systems of 3,500 or more subscribers (regardless of market size) to provide up to four access channels if they have the channel capacity and the demand for use (CFCC/Cable: 1976). These access channels are considered to be the "nonbroadcast" portion of a cable system, as opposed to those channels that carry local or nearby broadcast signals and commercially syndicated or locally originated programming as they are aired. Educational institutions, both public and private schools and universities, are given access free of charge to these channels for the delivery of television courseware to homes, places of work, or community centers. For example, the Pennsylvania State University offers credit and noncredit continuing education courses throughout the state via

cable television, using cable educational access channels.

The experimental QUBE cable system in Columbus, Ohio opens new possibilities for cable television use by educators and adult learners. QUBE is a two-way cable system that enables viewers to "talk back" to their television sets by means of response buttons on the home control panel; responses are registered on a computer at the system's control center. Several QUBE channels are currently being used for college credit and noncredit course delivery, enabling students to answer questions and take tests at home using the response buttons (Focus on: QUBE, 1978)

The audience potential for cable delivery of educational materials is by necessity limited to those areas with cable penetration and to those persons who subscribe to the service. The cable audience will grow as more areas are penetrated by cable, and as the increased number of channels offer increased options in programming (educational and otherwise), thus stimulating subscriptions. It is estimated that one-half of the television homes now have cable passing by the front door and the growing programming possibilities with the expansion of two-way cable will undoubtedly increase the numbers of cable subscribers.

ITFS

In 1963, the Federal Communications Commission designated thirty-one channels in the microwave portion of the spectrum (2500-2690 MHz) as Instructional Television Fixed Service (ITFS) channels, to be used "primarily for the transmission of visual and aural instructional, cultural, and other types of educational materials." ITFS is a low-power, omnidirectional transmission system with a line-of-sight reception area of approximately twenty miles in all directions. (This coverage area can be extended through signal repeaters and linked systems.) The technology of ITFS is such that it is an ideal method of reaching specialized audiences. It is *narrow* casting in the truest sense. An ITFS system requires special receiving equipment that converts the microwave signal down to broadcast television frequencies for viewing purposes. Because this equipment costs around $2,000 per site, ITFS transmissions are not intended for home reception by the general public but rather for those persons with a common educational or informational need who might be served by the reception of televised materials at a specific location, such as a study center, library, or place of business. ITFS is an example of the "point-blank" approach to serving the intended audience.

Since each ITFS licensee is allowed up to four channels with which to serve the educational needs of a geographical area, the potential exists to reach four separate specialized audiences simultaneously. ITFS also has a two-way audio capability (using FM frequencies), which, during live transmissions, enables those at the reception site to talk back to those at the signal origination point; this aspect of an ITFS system can bring students and teachers together in a "live" classroom even though they may in fact be twenty miles apart.

Recent ITFS-utilization statistics show that one-third of all ITFS licensees are higher education institutions. There are typically three uses of this technology by these entities, as a closed-circuit television network for geographically-dispersed colleges and universities, as a means to reach cable companies for delivery to homes, and as a link between higher education facilities and business/industry/medical institutions.

The audience potential for an ITFS system lies in its ability literally to extend a regularly scheduled college curriculum beyond the geographic boundaries of the campus, either to other campuses or to learning centers, places of business, and hospitals. Thus, an on-campus class in business management, for example, can be transmitted live to a number of corporations in the area and employees can participate in the course without leaving their place of work.

An example of an inter-institutional network use of ITFS is IHETS, the Indiana Higher Education Telecommunication System. This statewide system connects the main and regional campuses of Indiana's public universities as well as several private colleges, combining ITFS with telephone, cable, and broadcast technologies (at present IHETS operates nine ITFS systems). Courses can be sent from a "home campus" to regional campuses, and courseware can be developed and shared among the institutions. In addition, ITFS is used to deliver in-service educational materials "confidentially" to medical practitioners at hospitals and clinics.

Satellites

Communications satellites are replacing telephone land lines as a means of dispersing television programming nationwide. In 1976, the Corporation for Public Broadcasting signed a contract with Western Union to provide WESTAR satellite services for public broadcasting stations; today 165 public television stations are interconnected by satellite. Many cable companies currently use satellites for program services across the country.

The advantage of satellite use for program delivery lies in the ability of this technology to deliver materials nationwide to dispersed audiences in "real-time." Whereas the ITFS system can bring student and teacher together in the classroom despite a twenty-mile distance between them, a satellite can bring a teacher in Chicago together simultaneously with the students in New York and Los Angeles for interactive sessions. Experimental NASA satellites have been used in the

past for this type of program delivery at a slightly smaller geographic range, the interconnection of PBS stations by satellite has made it possible to accomplish such a feat on a nationwide basis.

The "nonbroadcast" use of the Public Television Satellite System (that is, for programs other than those that are broadcast on public television stations) for educational purposes was demonstrated by the Public Service Satellite Consortium (PSSC) and the American Dietetic Association (ADA) in September of 1978 (PSSC, 1978). A continuing education program for dietitians originating in Denver was transmitted live to one hundred sites in eight cities, from San Diego, California to Columbia, South Carolina. The signal from Denver traveled 22,300 miles into space to reach the WESTAR satellite and was retransmitted back to earth where it was received by eight public television stations. These stations in turn distributed the signal to viewing sites via cable, ITFS, and broadcast television. Since the program was in real time, dietitians at the viewing centers (who had enrolled for continuing education credits in the program) were able to ask questions of the panel in Denver.

A Corporation for Public Broadcasting study conducted by PSSC on the nonbroadcast uses of the Public Television Satellite System contains a "shopping list" of suggested applications of satellite technology by public service users (PSSC, 1978). This list includes:

- delivery of continuing professional education
- materials distribution services
- alternatives to workshops, conferences, and seminars
- access to and distribution of mediated courses of instruction
- delivery of in-service training

These applications are not limited to the WESTAR satellite and public television stations, other satellites and receiving points (such as those serving cable companies) could be used for these purposes

Videodises

Videodisc technology has been under development for almost a decade, and finally became a reality with the introduction of videodises on the market in Atlanta at the end of 1978. Videodisc technology involves a low-power laser beam that "picks up" information from a disc resembling an LP record. The videodisc player is about the size of a standard turntable and connects to a conventional television set via the antenna terminals, the information picked up by the laser beams appears as a picture on the television screen. The disc contains 54,000 frames of information and, in a standard play mode, provides for thirty minutes of playing time per side. The Phillips-MCA videodisc player has controls for still frame, forward and backward slow motion, and frame search ("Phillips-Magnavox/MCA Magnavision/Discovision System," 1979). The videodisc system has several drawbacks, unlike the home videotape recorders, programs cannot be recorded off of a home television set onto one's videodisc player, and the discs cannot be erased and used again ("'Disks' Played on TV Sets . . .," 1978).

Some have predicted that the videodisc will replace videotape as a television program storage and retrieval device. The discs are cheaper to produce in mass quantities than tapes, and require much less space for storage. The videodisc player and the discs themselves will be available to the consumer at prices considerably lower than those for comparable home videotape equipment. For educational purposes, the variable speed control and frame-by-frame access capability of some videodisc players offers greater flexibility for both program providers and students.

Besides the commercially marketed videodisc systems, a system being called the "intelligent videodisc" has been under development. This is a combination of the conventional videodisc system with computer technology, for computer-assisted instruction (CAI) in tandem with audio, video, and textual programming (Eastwood, 1978).

The appeal of commercially marketed home videodisc systems and the intelligent videodisc for student audiences lies in their approach to the delivery of materials. Students have access to materials at their leisure rather than at a time required by the program-scheduling concerns of other delivery systems. The same is true, albeit without the speed and frame controls, for programs on videotape to use on home videocassette recorders.

Electronic Blackboard

The electronic blackboard is another method of extending classes beyond campus boundaries in real time. Telephone lines carry both the instructor's voice and any diagrams he/she draws on a "blackboard" to any number of classrooms at any distance. The voice is received—and questions returned—via a conference telephone, the very normal-seeming blackboard in the instructor's classroom transmits signals to television monitors in receiving classrooms.

Computer and Computer-Assisted Instruction

Computer-assisted instruction has been of interest to educators for years but its use has been limited by cost. Current developments in computer technology may now bring the cost down to a point where it is possible for institutions and individuals to buy and use computers for educational purposes.

Computers bring an educationally distinct capacity to the media we have been discussing whether they stand alone or are used as part of an "intelligent vid-

codisc system." They can include interactive programs with variable prescriptions—that is, a student can complete a set of exercises, have them evaluated by the program, and be assigned further work based on his or her performance.

Both macro- and micro-computers are now being used in educational settings. The macro-computer system uses many terminals, all connected to a central computer; the central computer usually performs a number of other functions in addition to its educational uses. Perhaps the best known of the macro-systems is PLATO, for which a large number of programs have been designed. PLATO allows users to incorporate graphics into their lesson and enables students and instructors to write and receive notes and to talk to one another in "real time" no matter how far apart they might be in actual miles. Like the electronic blackboard, PLATO uses telephone lines for data transmission although there has been some discussion of moving to a satellite transmission mode.

At the other end of the spectrum, micro-computers stand alone and derive the "information" they need from programs stored on "floppy discs" or other devices rather than at a central computer location. Several models have all the capabilities of the PLATO system except the ability to communicate.

Both systems are being used or are under consideration for distance education by the University of California system. University Extension at the University of California, San Diego, offers a certificate course in instructional development and design to students all over the United States via the PLATO system, and the Independent Study Division at Berkeley hopes to include a computer-based course using micro-processors and floppy discs in the computer language, Pascal, among its correspondence courses.

The audience potential for both systems will depend on costs and on the availability of good software.

PROGRAM SCHEDULING

A telecourse, no matter how excellent, is doomed to fail if the audience for which it is intended does not have access to it. The times of the day that course programs are available, and the number of times each program can be seen, are as important to the success of a telecourse as the course itself. Another consideration of this program scheduling aspect is the number of hours that can be made available for educational programming aimed at the adult learner for this determines the number of courses that can be offered.

The most limited delivery system for program scheduling is broadcasting. Commitments to audiences other than students of telecourses and the actual cost of broadcast air time restrict the number of hours available for this type of programming and prohibit flexible scheduling or numerous repeats for programs that are broadcast. Most public television stations (79.5%) offering post-secondary telecourses are able to arrange for the airing of course programs during the early morning and early evening hours which *the stations* consider to be most advantageous for the adult learner (CPB, 1976). Nationally broadcast series that have a credit option are usually aired during prime time hours with repeat broadcasts at other times, and for this type of series this scheduling appears to be successful. In a survey of its telecourse students, however, Dallas County Community College District found that prime time was not the preferred viewing time for locally broadcast lessons (DCCCD, 1978). The repetition of individual programs of a telecourse during different times of the day and/or on different days of a given week is also very important in allowing students of varying personal schedules access to the lessons (although the Dallas survey shows that few students watch a given program more than once). Many stations repeat a given course program two or three times. While actual numbers of hours of air time for post-secondary telecourses are limited, it appears that most public television stations are able to accommodate at least minimum scheduling for adult learners.

Nonbroadcast technologies increase student access to number and hours of television courses. A cable educational access channel could conceivably be programmed twenty-four hours a day with post-secondary materials, as could an ITFS system licensed to a college or a university. The options for more telecourses and for flexible scheduling and repeat broadcasts of programs to meet the needs of students are much greater using nonbroadcast rather than broadcast delivery systems, since the former are not subject to the constraints of the latter. In many places, however, ITFS transmission is dictated by the times students can take or instructors can teach courses. The University of Southern California's Interactive Instructional Television System (I-ITV), which uses a four-channel ITFS system for delivery, offered employees of business and industry in the Los Angeles area forty-two credit and twenty-eight noncredit courses during the Spring 1978 semester. Courses offered for nonprofessionals on the I-ITV system are scheduled so that students can take them during the noon lunch hour or immediately after work at their place of employment, thus facilitating course attendance. Engineering courses are transmitted during the hours they are taught. Similarly, use of the electronic blackboard must be scheduled to suit the convenience of both teachers and learners.

Post-secondary courses and in-service programs that use satellite communications as one component of the

delivery system (other than nationally fed PBS programs) must depend on the availability of transponder time on a satellite for scheduling of transmissions; transponder availability is a constantly changing entity often dependent on other users and the capacity of the satellite. The Western Union satellites (WESTAR I and II) used by public television stations for interconnection are now approaching full capacity use; however, Western Union plans to launch a third "bird" in August of 1979, which will open up more transponder time (Video News, 1979). Satellite transponders can be leased for scheduled use over a period of time, assuring the availability of the satellite. At present, however, equipment costs make it virtually impossible to receive satellite transmissions directly at homes, schools, learning centers, or the like. Because of this, the "final mile" delivery of programs from the satellite to the student often entails the use of another technology (although low-cost smaller earth stations can eliminate this necessity in some areas); in "final mile" delivery the use of nonbroadcast systems is preferable to broadcast systems for the above-stated reasons of access and flexibility.

A system that gives a student access to course materials at his or her convenience and that is not subject to specific scheduling allows the ultimate flexibility in meeting every student's access needs. The cassette player in the library or learning center, the home videotape player, and the impending videodisc systems can and will make it possible for the student to lease or purchase course programs (or use them at the library or learning center) for viewing at his or her own discretion. Programmers in broadcast, cable, or ITFS operations cannot possibly schedule course programs in such a way as to be compatible with the personal schedules of every potential telecourse student.

Large computer systems and micro-computers in college computer centers limit student access to set times and appointments although there may be a great range of flexibility within them. Home use of these systems is not yet widespread, but may well become so within the next decade. If so, computer-assisted instruction will have the same flexibility as videodisc or tape instruction.

COSTS

The costs of delivering television courses to adult learners cannot be discussed without taking into account the effectiveness of a given delivery system for both provider and student. Although an hour of broadcast air time can cost a provider ten times the dollar amount of an hour of ITFS transmission, a particular broadcast course may reach more than ten times as many students, thus making this type of delivery more cost-effective overall unless production costs differ greatly. Bearing this in mind, the following section will examine the costs of the various technologies used to deliver courses to adult learners.

Broadcasting

An hour of broadcast air time can cost anywhere from $150 to $350 at a public television station (PSSC, 1978), although some stations give a discounted rate to educational institutions buying air time. Commercial television stations and many public television stations often provide free air time for television courses (usually in the very early morning hours) as part of their public service commitment. Because programs that are broadcast must meet FCC regulations for technical standards, sophisticated production equipment is necessary and production costs are generally higher than for nonbroadcast-quality programs.

Cable

Air time on a cable educational access channel is provided free-of-charge to qualified users in a major cable market. The cable company, however, is required only to provide access to the channel and does not have to supply videotape players or studio production facilities. A telecourse provider, therefore, may have to provide technical personnel, such as television engineers, and videotape playback equipment to get the programs on the air. Some institutions reach cable head-ends from an origination site (a university studio or playback facility, for example) via a dedicated microwave or an ITFS channel. The cost of a dedicated microwave-to-cable link is approximately $40 an hour and ITFS transmission costs are around $25 to $50 an hour for one channel (PSSC, 1978). FCC standards of technical quality for programs aired on "nonbroadcast" cable channels are not as stringent as those for broadcast, therefore production costs need not be as expensive for this type of program delivery.

ITFS

The initial costs of setting up an ITFS delivery system vary widely depending on existing facilities and the geographical terrain of a given area. Although ITFS is an omni-directional low-power system, it still requires signal origination facilities similar to those of a broadcast station: videotape machines, a studio facility if there is to be original production of materials, a transmitter, and a transmitting antenna; and may require additional transmitting equipment to reach the service area. Reception of ITFS transmissions requires a receiving antenna and down-converter at each receiving site at a cost of roughly $2,000 per site. Additional costs can be incurred at the receiving area for television

monitors, or for a closed-circuit distribution system if multiple areas of a receive site are to be served. In order to have "talkback" capability, an additional cost of $5,000 per channel per site is incurred. All of the above are initial, one-time costs. For transmission, institutions have been charging $25 to $50 an hour to cover engineering costs and equipment amortization. Present FCC regulations require ITFS systems to meet "broadcast standards" for technical quality. A 1976 proposed FCC ruling (RM 2603) would have removed these restrictions, allowing ITFS users to operate within closed-circuit or nonbroadcast cable technical parameters. Other parts of that ruling were opposed by ITFS users and therefore it has been tabled (JCET, 1976). The FCC is aware of the limitations placed on ITFS operators by the present regulations, and has not enforced the broadcast standard.

Satellites

The costs of satellite delivery of telecourses other than those broadcast nationally by PBS encompass much more than simple charges for transponder time. End-to-end service entails a number of variables, including the "final mile" delivery to the intended receivers of the programming. The Public Service Satellite Consortium (PSSC) has developed hypothetical charges for end-to-end service in three different situations. These charges range from $275 an hour (to transmit an existing program from a PBS station with uplink capability to a viewing room at a PBS station colocated with its receiving earth station) to $515 an hour (for black-and-white studio production, dedicated microwave to satellite uplink, transponder time, and ITFS or cable delivery to viewing sites) to $1,302 an hour (for color-studio production, AT&T land line to satellite uplink, transponder time, and open-air broadcast delivery to viewing sites and homes [PSSC, 1978]).[17] Again, these are hypothetical figures, and many other combinations of variables are possible at varying costs. Technological advances and the marketplace are bringing down the costs of satellite earth stations, and the future holds the possibility of direct broadcast-to-home satellite reception with small receiving dishes costing as little as $100 to $200 (Gunn, H., 1978). These innovations could further revolutionize televised instruction by eliminating the "final mile" problem, and making it possible to have satellite reception at schools, libraries, learning centers, or homes.

The cost of satellite use can also differ if the program material is to be used in "real time" (a live transmission and simultaneous reception), or if it is to be stored by recording for use at a later time. There are additional costs incurred for the latter, but these must be weighed against the costs of higher peak-hour rates (Pool, 1976). Real time satellite use should be justified by the requirements of the material itself.

Videodiscs

Commercially marketed videodiscs will be an inexpensive method of reaching the student at home. The first videodisc players sold in Atlanta in December of 1978 cost $695, with discs selling for $5.95 to $15.95 depending on the content and length of the programs ("The Phillips Magnavox/MCA Magnavision/Discovision System," 1979). It is estimated that the price of players will drop to under $400 by the early 1980s, and discs will become even less expensive. In comparison, costs for home videocassette players and software are much higher—around $900 for players and about $50 for tapes. The nature of videodisc manufacturing is such that discs can be stamped out at a labor and material cost of approximately 40 cents each, making these an inexpensive commodity when mass produced and distributed. A 100-school network using videodiscs could save $23,000 per year over a conventional film distribution system (Eastwood, 1978).

The hardware costs of an "intelligent" videodisc system are estimated at between $1,500 and $2,000, with the discs themselves costing again about $3.00. However, based on other computer-assisted programs of study, it is estimated that creation of courseware for one full-year college course for this system would cost between $500,000 and $700,000 (Eastwood, 1978). This would rule out a single institution's producing courseware. Production would only be feasible with a multi-institutional or perhaps government-sponsored effort.

Electronic Blackboard

Pricing for electronic blackboards is not yet firm but projected costs are somewhat less than charges for installation and operation of ITFS systems. Installation charges for the blackboard itself will probably be slightly over $800, with a monthly charge of about $400. The monthly fee includes maintenance; no other personnel besides an instructor are needed for operation. At each receiving site a conference telephone is necessary, costing about $262 a month plus a $527 one-time installation charge. In addition, the user has to provide a television monitor at each receiving site and to pay telephone-line charges. The telephone-line charges are roughly equal to regular phone use and are amenable to the various discount systems accompanying it.

[17] Costs for the hypothetical schedule of charges and model were compiled using established tariffs, quotations from carriers, broadcasters, producers, and existing schedules of charges for services. These costs are intended only for discussion purposes in planning and budgeting for end-to-end service utilizing the PSSC (p. 16).

Computers and Computer-Assisted Instruction

The cost of a PLATO system terminal runs slightly over $1,000 a month, including phone-line charges. There is no installation charge for the terminal, the phone company requires a small payment for the telephone hookup. The costs of a stand-alone microcomputer vary with the model and the company. Micro-processors currently in use for computer-assisted instruction retail for something over $2,000 and are expected to be available in larger orders for about $1,500 each. Programmed floppy discs for these computers, produced in bulk, will probably retail for $15–$25 each, a price that should be within most students' reach. Both types of terminals can handle about twenty students a term, assuming they are in an environment where there is access twelve hours a day.

Another factor should be taken into account when discussing costs in all of these systems—production costs for the educational programs associated with them. There are no "production" costs for real time transmission of education via ITFS and electronic blackboards. The costs of the programs for broadcast television (discussed in Section VI) vary tremendously according to the program and are often very high *but* these programs are also suitable for cable, satellite, and ITFS transmission, or for transfer to videodisc and videotape. Once the program has been produced, it can, given proper clearances and permissions, be transferred to any of the delivery systems.

The production of material for computer and intelligent videodisc delivery is another matter. In these systems producers are working again from the ground up, and the costs are high. Low unit costs for high budget systems depend on mass production and sale but, to date, a mass market for computer software has not existed. Recent developments may alter this pattern, if they do, computer-assisted education and intelligent videodiscs will probably become a major force in educational technology.

A final caveat, however, must be added with reference to this discussion of costs. Broadcast television requires the student who usually has a set to bear a relatively small proportion of the "hardware" costs. Systems such as ITFS or cable require an added investment by the student, either for equipment or in travel. Videotape or disc, as stand-alone computer systems, require an even greater double-edged investment. Students may have to buy hardware to participate in any course, they must obtain special materials above and beyond books to participate in a particular course.

MARKETING

The marketing of post-secondary television course material depends for the most part on the material itself and on the audience for which it is intended. However, the various distribution alternatives serve intended audiences in different fashions, and the nature of the technology can affect the marketing strategy.

Nationally broadcast telecourses have a built-in mechanism for marketing. As part of the regular PBS schedule they are listed in program guides (such as *TV Guide*), promoted on-the-air by the stations themselves, and often receive further exposure through news and feature stories. For example, the *TV Guide* for the week of February 10–16, 1979, carried a cover story on *The Shakespeare Plays* series, which was being offered for lower division credit. Since many of the nationally broadcast courses are not originally produced for instructional purposes and are intended for general audience viewing as well as for college credit, they are treated promotionally like other noninstructional programs, with the credit option as an added attraction.

Local broadcast telecourses are also listed in program guides, and perhaps receive publicity elsewhere through brochures, pamphlets, inclusion in course catalogs, and so on. Presumably, if the course was intended for a specific audience group, marketing would be aimed at that group through professional organizations and the like.

Cable television is not quite as visible as broadcast television. Educational and other access channels are not often listed in program guides and many cable companies do not publish their own program listings. Many cable subscribers may not know an educational channel exists. In addition, only that portion of the intended audience who are cable subscribers will be able to receive the course. Promotional efforts must be aimed at cable subscribers in general if the course is of a general interest nature. If there is a target audience, such as teachers or nurses for example, they must be reached with information about the course offering.

The same holds true for courses that use ITFS or satellites in tandem with other systems for the delivery of materials. Since these technologies are usually used to serve specific audience groups rather than a general audience, these groups must be made aware that the course possibilities exist. The use of satellites to deliver live programs across the country is in itself innovative enough to attract group members if sufficient publicity efforts are made. In other words, satellite delivery still has a "gee whiz" quality about it that can be used within the program-marketing strategy.

The marketing of home videodisc systems and computers will undoubtedly come from the commercial entertainment industry. Educational video- and floppy-discs can be marketed along the same lines as books, to both home users and libraries or resource centers.

Marketing programs to the users (the students) is an integral part of successful distance-learning via telecommunications, but the delivery systems themselves,

be they broadcast television or "intelligent videodisc," must be marketed to the educational providers. Educational institutions must be made aware of both the educational and audience potential of various types of delivery systems, and the benefits to both the institution and the student that come from using telecommunications as a method of delivering instruction off-campus. Economic factors play a large role in institutional decision-making, and the cost-effective nature of telecommunications is an aspect that must be stressed. For example, a public university that depends on full-time enrollments for state funds can use an ITFS system to extend the borders of the campus, increasing enrollments without putting further burdens on crowded classrooms and over-extended instructors.

EDUCATIONAL INNOVATION

Some of the alternative telecommunications delivery systems discussed above have the potential to allow for innovative education techniques. Broadcast television mostly limits the student to passive involvement with televised course material. he or she simply views the programs, and may engage in conventional educational activities by participating in on-campus discussion sessions. Conventional cable television delivery is similar to broadcast television in this aspect. However, two-way interactive systems such as QUBE make it possible to incorporate innovative techniques in program design, especially in terms of testing and student response. ITFS has been used primarily to extend the conventional classroom experience to students off-campus, so that students are able to interact with instructors as if they were actually in the on-campus class. Any innovative practices occurring in the on-campus classroom would similarly be extended to the student participating via ITFS. Since satellite technology currently demands the use of other delivery systems to take programs the "final mile" to students, potential for educational innovation would depend on the delivery system used in conjunction with the satellite. However, satellites can be used for data as well as audio and video transmissions. In such fields as computer-assisted instruction and information retrieval, therefore, avenues for innovation with this technology exist that reach beyond the realm of televised instruction (Pool, 1976).

At present, the videodisc (both home and "intelligent" models) and computers seem to offer the most potential for educational innovation. The other delivery systems we have discussed bring education to the student in "real time" for the student, that is, the learner has no ability to modify the pace of instruction. In home-based systems, however, the learning can be self-paced. Further, the viewer control aspect of some home videodisc models would allow for a program design that incorporates moving and still action, and that might make use of the forward and backward controls. Computers offer interactive modes of education that often can be repeated or reviewed by the student. Some programs, in both systems, allow random access. The "intelligent videodisc" offers a combination of audio, video, and computer-assisted instruction, around which integrated programs of instruction might be designed. Both, however, remove the element of pacing that may be important to some home consumers of education.

XIV.
THE FUTURE

- Future uses of telecourses will see increased availability through the use of alternative delivery systems and increased uses of telecommunications for informal learning.
- Questions of responsibility (academic, technical, financial, administrative) for integrated uses of the media must be resolved.

Our last question to each respondent concerned the future of telecourses. The answers fell into a consistent pattern

1 There is a solid future for telecourses in their present form There is potential to increase audience penetration and potential to extend the use of telecourses to new geographical areas. *No one* felt there was much potential to increase the amount of broadcast time currently available to telecourses, regardless of the amount currently alloted in the respondent's area.

2 If other forms of telecommunications are added to broadcast television, the potential for use was seen as increasing exponentially Many respondents referred to the changing demographic composition of the population and to the increasing use of nontraditional programs. Almost all the forms of technology discussed in Section XIII were cited as supplementing the use of broadcast television

The SCEPAL Project has examined *broadcast* telecourses that are offered *for credit*. We expect future moves beyond this model to alter these two aspects It is quite likely that those alterations will follow two different roads.

1 Augmentation of broadcast credit courses by the use of nonbroadcast delivery systems

Broadcast television offers a means of reaching more students in their homes with nonprint materials that are cheaper, for the student, than those of any other visual technology. Nevertheless, there seems to be a need to move away from dependence on that very rare commodity, broadcast time—or to make that commodity less rare. How this is to be done is complex and far beyond the scope of this report, we can only raise some questions that have emerged from the complexities of dealing with telecourses as they now exist

2. Extended use of noncredit/informal use of telecommunications in education.

This usage exists at present, but there is little recognition of it by the more formal organizations of society, and it commands little support. In order to obtain recognition and support some means of identifying administrative and financial bases for such education must be found. To date, this is uncharted territory---but it is very promising and will be an important area for further exploration.

As a last research suggestion, let us pose some of the questions that must be addressed and roles that must be defined before new systems can be successful. As you consider them, remember that they are presented as an addition to most of the questions about the telecourses that have been raised in this paper. In the present mode of credit telecourse production and delivery, most of these questions already have been resolved for operational purposes.

COMPONENTS TO BE INTEGRATED/QUESTIONS TO BE RESOLVED IN A MULTIMEDIA INSTRUCTIONAL DELIVERY SYSTEM

Each component of an instructional system has four standards by which it can be measured, each of which can separately range from rotten to excellent, and each of which can but must not always be supplied from separate individual or institutional sources.

Academic	Who will be responsible for each of these?
Aesthetic	How will they be integrated?
Instructional	What role does each play in each system component?
Technical	

The system components can be

Visually based	What role will each play in the learning process?
Aurally based	Who will be responsible for (pay for) the production (or acquisition) of each component?
Print based	Who will be responsible for (pay for) the delivery of each component?
Computer based	What will be the technological means of delivery of each component?
Person based	

As the system is delivered, who will be responsible for educational guidance or an evaluation of learning?

The learner	What will be the relationship among these?
Formal educational institutions	What will be their legal and accreditational context?
Nonformal educational institutions, or groupings	
Formal noneducational or quasi-educational institutions	

The system must ultimately be paid for from among the following

The federal government	Who pays, in what proportion, and at what point?
State governments	
Local governments	
Charitable foundations and organizations	
Profit-making organizations	
Educational institutions	
Public and commercial stations or telecommunications centers	
Learners	
Other consumers of all or part of the system	

APPENDIX A:
INFORMATION ON SCEPAL RESEARCH

METHODOLOGY

The research for this project was conducted over a five-month period in late 1978 and early 1979. It was based on a series of issues (see Areas of Inquiry, below) generated by the Executive Committee of the SCEPAL project in consultation with the Corporation for Public Broadcasting.

The aim of the research portion of the project was to provide an overall assessment of the "state of the art" in telecourses to serve as background to the Executive Development Seminars. In order to do this, we pursued two related activities: a review of telecourse literature and a series of interviews with telecourse administrators in stations and colleges.

The interviews were based on questionnaires developed for the project. They attempted to cover a range of issues and procedures about telecourses and, in the process, identify areas that might have been left out. The questionnaire was revised, slightly, about halfway through the interviews.

The individuals interviewed were selected on the basis of diversity; we attempted to include as many different types of institutions, programs, and stations as possible. The common bond was that they all worked with telecourses. As we had expected, patterns of usage and response emerged but, because of this diversity, did not always fall into tidy categories. In addition, we interviewed faculty and administrators at two colleges that did not offer telecourses.

The actual distribution of persons interviewed was as follows:

twenty-two persons at ten 2-year colleges
twenty-one persons at twelve 4-year colleges
one person at a commercial television station
nineteen persons at eleven PTV stations
ten persons at seven publishers
five persons at five other organizations representing other aspects of telecourses

Because our intention was to elicit volunteered information as well as answer the specific questions we had identified, the interviews were informal. The informal process meant that we did not always have neatly quantifiable data. This is the reason that numbers of responses to questions are not always given and, when given, do not always equal the sum of the respondents.

In addition to interviewing respondents, we also collected literature. Much of the literature, other than that generated by major telecourse producers, about this subject is "fugitive" in the truest sense of the word. Figures, thoughts, and miscellaneous pieces of information exist in most places but are often buried in files or otherwise inaccessible. We were, for obvious reasons, not able to collect all of it, but we did retrieve a large number of in-house reports and local surveys. They are included in the bibliography.

The literature concerning telecourses falls into a few well-known categories and skirts a number of other issues. Throughout the report we have tried to identify areas that seemed to merit some, more, or different work. As a prelude to this, and as a part of our purpose in preparing the report, we also began to identify and chronicle broad trends in telecourse use. These are included in the paper as are summaries of interview responses and written reports.

STATION-COLLEGE EXECUTIVE PROJECT IN ADULT LEARNING—AREAS OF INQUIRY

1. Existing telecourse audience. Characteristics, comparison with.
   a. General television audiences
   b. General student population
2. Most popular nontelecourse topics
   a. Community College
   b. B.A. degree
   c. Extension Division
   d. Professional
3. Potential audience/telecourses. Past and current popular telecourses, most requested but not available, potential and special audiences not now being served; limitations from the economics of production and distribution.
4. Costs, to station and college, of telecourse production and use. Returns in each area.
5. Factors that influence the decision of
   a. Television stations
   b. Educational institutions

to offer telecourses, outline of mechanics of typical station or college decision to adopt and implement a telecourse.

6. Implications of broadcast or alternative distribution of telecourses.

Distribution System	Implications
National broadcast	Audience potential
State/regional broadcast	Cost
Cable	Marketing
Satellite	Technological potential for educational innovations
Videodisc/vise/computer	
Program scheduling	

7 Success/failure in use of telecourses, sources of problems to colleges, stations, and students Evaluation of telecourses.

8. Consortia and telecourses Existing situation and potential Problems in the use of consortia Producers, financial models of cooperation, users

9. Promotion of telecourses Currently successful models; guidelines for the future Stations, educational institutions, other organizations. State guidelines about promotion in advertising for telecourses.

10. Services to telecourse students by stations and colleges.

11. Station executive/educational administrator interaction in the offering of telecourses. Relations of educational institutions with public television stations; preferred type of broadcast.

STATION-COLLEGE EXECUTIVE PROJECT IN ADULT LEARNING (SCEPAL)

COLLEGE ORAL INTERVIEW FORM

Institution: **Type:** 2 yr _____ 4 yr _____ Ext. _____
Prof _____ Other _____
Type of degree(s) offered

Individual Interviewed:
Name
Position
There since

Telecourse administration:
Administrative relationship to rest of institution?
Administration of telecourses?

Institutional funding:
State aid
Tuition
Grants
Other

General institutional experience with TV:
Started using
How many TV courses typically offered
What were major decision points and questions when you began to use telecourses?

Models of television courses used:
Courses from television
Courses by television
ITFS
Cable
Mix
Other

Could you describe a typical telecourse
(faculty involvement, number of class meetings, etc.)

Audience:
How many students enroll for telecourses?
Are there any noticeable trends in telecourse enrollments?
What is the retention rate for telecourses?
Do you have any data on the characteristics of your telecourse audience?

College Oral Interview Form – Continued

How do these characteristics compare with your general student population?
Do you see any audiences not now being served?
Why have they not been reached? Would you react to the following list:

1. Simple neglect
2. Too expensive
3. Don't know how
4. Other

Do you have any indication that non-enrolled students watch telecourses?
If so, how many?
How many of the students enrolled in telecourses actually watch the TV programs?

Telecourse Appeal

Would you react to the following possible reasons for the appeal of telecourses and their importance in determining that appeal?
Vocational
Part of a degree program
Outstanding teacher/special feature
Cost to student
Institutional identity
What kinds of regular courses are popular in your college/university?
How does your organization determine that a particular subject area is worth offering? Is this the same procedure as for telecourses?

Cost and Economic Benefits

	Courses for TV	Wraparound Courses	Other
Production			
programs			
Printed materials			
Text			
Support books			
Faculty manuals			
Publicity			
Other			
User College			
Rent/lease/purchase of cassettes			
Taping off air			
Dubbing extra cassettes for library/media center			
Institutional print materials			
Air time			
Publicity			
Staff time			
Direct costs			
Administration			
Relations with TV stations			
Registration/record keeping			
S and E			
Faculty			
Salary			
Space for class			
S and E			

	Courses for TV	Wraparound Courses	Other
Consortial fee			
Other			
Economic Benefits			
Income			
Tuition			
ADA			
Other			
Cost per student			
What is your average per class enrollment?			
What is your breakeven point on enrollments?			
Comparison:			
How do these compare, i.e., is it economically worthwhile to offer telecourses?			

Benefits/Problems Checklists

Benefits Checklist:

This is a checklist of possible benefits from television courses. Would you please indicate whether each of these is quite important, somewhat important, not important to your institution in its decision to offer telecourses.

	Quite Important	Somewhat Important	Not Important
1 Reach audiences that *could not* otherwise attend college			
a Housewives with small children			
b Handicapped			
c Senior citizens			
d Distance			
2 Reach audience that *would not* otherwise attend college			
a Reentering students			
b Students not aware of opportunities			
3 Ability to schedule "classes" at convenient times/repeat potential of programs			
4 Offer subjects for which regular faculty not available/not prepared			
5 Offer alternative learning approach			
6 Provide means for bringing students into contact with books			
7 Free faculty time for other, non-lecture interaction with students			
8 Stretch faculty resources – i.e., allow a faculty member to handle more classes or students			
9 Make money			
10 Offer visuals for processes/information better conveyed visually than in words			

College Oral Interview Form – Continued

	Quite Important	Somewhat Important	Not Important
11 Pacing device			
12 Draw students into the regular program			
13 Provide publicity for the institution			

Are there other benefits not listed on this sheet?

Problems Checklist:

This is a checklist of possible problems with television courses

Please indicate the degree to which you feel each is important

	Quite Important	Somewhat Important	Not Important
1 Threatens faculty			
a Jobs			
b Idea of "quality" education			
2 Inability to predict enrollments			
3 Lack of suitable courseware			
4 Difficulty in using unfamiliar educational system			
a For administrators			
b Faculty			
c Students			
5 Administrative time needed to made preparations/arrangements for courses			
6 Difficult to schedule			
7 Don't know whether can re-use in future			
8 Uncertainty about/lack of off-air taping rights			
9 Lack of control over content/presentation			
10 Lack of preparation time for course			

Are there other problems not listed on this sheet?

Adoption Process

What is the adoption process for a course in this institution?

How long does this take?

How much lead time is needed to

List a course in the catalog

List a course in the class schedule

What is the total course adoption/listing time?

Does this differ for telecourses? In what ways?

How is this process shortened if something extraordinary happens? (do you)?

How important is each of the following in choosing to offer a telecourse?

1 Economic return/attraction for students

2 Academic breadth/importance

3 Interest group requests

Scheduling

When is the best time to schedule TV courses?

How have you determined this?

When is the most popular time to schedule regular classes?

College Oral Interview Form – Continued

Services

What kinds of services do you provide telecourse students?

1 Letters
2 Library facilities
3 Telephone hours
4 Discussion sessions

Are telecourse students differentiated from regular students in any way?

Publicity

Are there any prohibitions on publicity that affect your operation with telecourses?
How have you publicized telecourses?
Is this different from regular courses/programs?
Do you feel this publicity has been optimal?
Are there things you would particularly advise people to do or not to do in publicizing telecourses?

Interaction

What kinds of contacts do you have with the television station in offering courses?
What kinds of problems have you had? Scheduling? (when/whether) Air time?
What kinds of benefits do you receive from the television station?
Publicity?
Information regarding upcoming series?
Have you ever discussed payment with the station? Do you know how the station meets its costs?

Success/Failure

Have your telecourses, overall, been successful or not?
Could you describe to me why?
Are these problems that could be corrected?
Are these good things that could be replicated by others, under what conditions?
What do you feel is the future of telecourses?

STATION-COLLEGE EXECUTIVE PROJECT IN ADULT LEARNING (SCEPAL)

STATION ORAL INTERVIEW FORM

Station: **Type:** Commercial ___ PBS ___
Licensee type ___

Station address:

Individual interviewed:

Name
Position
There since
Telephone number

General relationship with educational institutions:

K-12
What kind
How long
Post-secondary

Station Oral Interview Form – Continued

What kind
How long
Proportion of programming that is "educational"
Number of telecourses broadcast (including "from") per quarter/semester:
Models of TV courses broadcast
Courses for TV
Wraparound Courses
Other

Importance of educational broadcasting to the station (their philosophy):

Audience:
What is the population in your viewing area?
Of this, what percentage watches your station?
Do you have any information on the characteristics of your audience?
General television audience:
Telecourse audience
Do you see any potential audiences for telecourses/educational programs that are not now being served?
Why are they not now being served?
Simple neglect?
Costs too much?
Don't know how?
Would it be possible to increase the audience watching telecourses or educational programs? What would be necessary to do to effect this?
More interesting programs?
More publicity?
Wider range of materials?
Other
Generally, what are the most popular types of television programs?
What measures do you use?

Costs and Economic Benefits from Telecourses
What are the costs associated with offering a program? What do they range?
Purchase/lease
Bicycling costs
Monitor technical quality, check program numbers, etc.
Dub cassettes for libraries and media centers
Administrative costs
S and E
Staff time for educational liaison, other activities
Opportunity costs in terms of
Scheduling
Programming
Publicity
Staff
Direct costs
Other
What are the economic benefits from using telecourses?
Purchase of broadcast time
Increased membership
Advertising
Other
How do these compare, i e , is it worth your while to offer telecourses from an economic point of view?

Station Oral Interview Form – Continued

Benefits Checklist:

This is a checklist of possible benefits from television courses. Please indicate whether each of these is quite important, somewhat important, or not important to your station in its decision to offer telecourses.

	Quite Important	Somewhat Important	Not Important
1. Reaching new audiences			
2. Public service			
3. Increasing memberships			
4. Diversity of programming			
5. Other			

Problems Checklist:

This is a checklist of possible problems with television courses. Please indicate the degree to which you feel each is important.

	Quite Important	Somewhat Important	Not Important
1. Lack of programming time			
2. Pre-empt more rewarding programming			
3. Unreasonable scheduling requests from colleges			
4. Staff time spent answering questions/in liaison			
5. Requests for publicity			
6. Other			

Benefits/Problems Checklists:

Do you have any suggestions as to how these problems might be solved?

(Commercial) If there were no FCC public service requirements, what effect would it have?

Programming Telecourses:

Is there a set process by which programming is done or is it the primary responsibility of the programmer?

What are your most important considerations in deciding to program a particular series or show, i.e., what do decision makers use as a basis for their judgments?

What are your timelines for programming?

To include publication in the programming guide/TV Guide?

Is there a way a "normal" process can be speeded up?

Scheduling:

What are the best times to schedule educational television programs?

How have you determined this?

If a college insisted on different hours, would you accommodate them?

If they wanted to pay?

How much would it cost?

Services:

What services do you provide colleges and universities?

1. Publicity
2. Accommodate needs in programming

Station Oral Interview Form – Continued

3. Inform about possible series/programs
4. Other

Do you have any contact directly with students? What kind?

Publicity:

Are you aware of any prohibitions on publicity for educational institutions in this area?
How do you publicize telecourses?
Is this different (less, greater) than publicity for other programs?
Do you feel this publicity has been optimal?
Are there things you would particularly advise doing to publicize telecourses?
Not doing?
Do you have special advice you would give to colleges relating to publicity of telecourses?

Interaction

Would you like to have more or less interaction with colleges in your area?
Why, and what would you recommend?
What, from your point of view, makes a telecourse a success or failure?
Are there particular conditions that lead to the functioning of telecourses in this area as they do? Can they be replicated/avoided in other areas?
What do you see as the future of telecommunications in post-secondary education?

INSTITUTIONS AND INDIVIDUALS INTERVIEWED

A. User Colleges/Universities

Arizona State University, Tempe, Arizona
Daniel Phippen
Coordinator, Off-Campus Credit Courses

Brevard Community College, Melbourne, Florida
Jack Carroll
Director of Learning Resources

California, San Diego, University of, La Jolla, California
Mary Walshok
Associate Dean, Academic Affairs, University Extension

Coastline Community College, Fountain Valley, California
Thomas Gripp
Dean of Telecourse Design
Leslie Purdy
Senior Instructional Designer
Peter Vander Haeghen
Director, Learning Systems and Services

Dallas County Community College District (Dallas ITV Center), Dallas, Texas
Dorothy Clark
Business Manager
Nancy Miller
Director of Implementation
Theodore W. Pohrte
Instructional Design Specialist
Rodger Pool
Director of Instructional Television

Eastern Kentucky University, Richmond, Kentucky
John Flanagan
Associate Dean, Non-Traditional Studies, Division of Continuing Education

Elizabethtown Community College, Elizabethtown, Kentucky
George Luster
Assistant Director for Academic Affairs
James Owen
Director, Elizabethtown Community College

Jackson State University, Jackson, Mississippi
Curtis A. Baham
Director, Center of Urban Affairs
Dennis Holloway
Associate Dean of Academic Affairs
Estes Smith
Vice President for Academic Affairs

Kingsboro Community College, Brooklyn, New York
Elizabeth Miller
Assistant to the Vice President and Grants Officer

Maricopa Community College District, Rio Salado Community College, Phoenix, Arizona
Jan Baltzer
Coordinator, Telecourse Operations

Miami-Dade Community College District, Miami, Florida
Kamala Anandam
Director, Computer-Based Instructional Development and Research

Ned Glenn
Director, Open College

J. Terence Kelly
Vice President of Educational Services

Robert H McCabe
Executive Vice President

Dorothy O'Connor
Student Services Specialist, Open College

San Diego Community College District TV College, San Diego, California
Hal Enger
Coordinator for Community College/Evening College TV Courses

San Joaquin Delta College, Stockton, California
Tobin Clarke
Director of Learning Resources

James W. Keene
(Former Dean of Instruction)

Philip Laughlin
Dean of Instruction

Seattle Pacific College, Seattle, Washington
June Lilworth
Director, Continuing Education and Special Programs

Southern California, University of, Los Angeles, California
Kathi Collins
Assistant Director, Instructional Television Program

Southern Mississippi, University of, Hattiesburg, Mississippi
James Robertson
Counselor For Independent Study, Division of Continuing Education and Public Service, Department of Independent Study

Tarrant County Junior College, Fort Worth, Texas
Edward A Windebank, Jr
Divisional Chairperson and Director of Instructional Television

Temple University, Philadelphia, Pennsylvania
Lee Trainster
Director, Center for Continuing Education

University of Mid-America, Lincoln, Nebraska
Wayne Hartley
Director of Academic Planning

Washington, University of, Seattle, Washington
Betty Oldham
Manager, Media Development, Continuing Education

Barbara Williams
Director, Division of Academic and Professional Programs, Continuing Education

William Carey College, Hattiesburg, Mississippi
Jack Rogers
Dean of Continuing Education

Nonuser Colleges/Universities

Swarthmore College, Swarthmore, Pennsylvania
Lee Devon
Associate Professor of English

Harold Pagliaro
Provost

University of the Pacific, Stockton, California
Margaret Cormack
Dean, Raymond, Callison Colleges

Michael Davis
Assistant to the President

Don Duns
Dean, College of the Pacific

Clifford J. Hana
Academic Vice President

Alan Mik
Chairman, Communications Arts

Reuben Smith
Dean of the Graduate School

B. Public/Commercial Television Stations

KAET-TV, Tempe, Arizona
Ted Christensen
Assistant Station Manager, Coordinator of ITV Services

KCET-TV, Los Angeles, California
David Crippens
Vice President, Educational Service

James Mathes
Director, Educational Service (telephone)

KCPQ-TV, Tacoma, Washington
Marlena Scordan
Director of Instructional TV

Kentucky Authority for Educational Television, Lexington, Kentucky
Virginia Fox
Associate Executive Director, Broadcasting

O. Leonard Press
Executive Director

Sandy Weiss
Director of Programming

KERA-TV, Dallas, Texas
Pepper Weiss
Director, Educational Services

KGO-TV, San Francisco, California (Commercial)
Robert Mitchell
Assistant Program Director

KOCE-TV, Huntington Beach, California
Paul Corbin
Director of Programming

KPBS-TV, San Diego, California
Susan Graff
Director of Educational and Special Services

Dorothy Rediker
Assistant Programming Manager

Bradford Warner
Director of Programming

KQED-TV-FM, San Francisco, California
Nat Katzman
Director, Local Broadcasting (telephone)

Mississippi Authority for Educational Television, Jackson, Mississippi
Julius Cain
Director, Programming

Miriam Gibson
Assistant to the Director of Education

Dorothy Kicklighter
Coordinator of Research and Evaluation

Reta Richardson
Director of Education

WMFE-TV, Orlando, Florida
Robert Leffler
Director of Educational Services (now moved)

WNET-TV, New York, New York
Timothy Gunn
Director, Office of Higher Education

C. Publishers

Boyd and Fraser, San Francisco, California
Jack Taylor

Holt, Rinehart and Winston, New York, New York
Richard Owen

Houghton-Mifflin, Boston, Massachusetts
Marcia Legre (telephone)

Kendall-Hunt, Los Angeles, California
Bruce Bayley (telephone)

Little, Brown, and Company, Boston, Massachusetts
Katie Carlone (telephone)
Janet Carlson (telephone)

McGraw-Hill Book Company, New York, New York
Don Burden
Michelle Korf
Robert Manley

Publishers' Inc., Del Mar, California
Richard Roe

D. Other

New York University, New York City
Ronald Gross
Adjunct Professor of Social Thought

Films, Incorporated, Wilmette, Illinois
Joseph Ellis (telephone)
Director of Marketing

Kentucky Council on Higher Education, Frankfort, Kentucky
Robert Carter
Coordinator, Telecommunications Consortia

Media Five, Hollywood, California
William J. Knittle, Jr. (telephone)
General Manager

Stanford University, Palo Alto, California
Henry Breitrose
Professor, Department of Communications

STATION MANAGERS/COLLEGE ADMINISTRATORS MEETINGS

Initial reviews of the draft research document were favorable but indicated we had neglected to include the perspective of the chief executives of institutions on telecourses. In order to remedy this, we held two meetings. One included station managers and programmers, the other college presidents and personnel from large Extension divisions of major universities. In each meeting a structured discussion explored the special concerns of administrators who needed to support telecourses but who did not work with them on a day-to-day level. The results of those meetings have been incorporated into both this research document and the SCEPAL Executive Development Seminar materials.

The following individuals attended these meetings:

Denver, September 20–21, 1979: Station Managers and Programmers

Tony Buttino, Instructional Coordinator
Western N.Y. ETV Assn., Inc.
WNED-TV Buffalo

Jon Cecil, Director
Television Is for Learning
Public Broadcasting Service

Burnill Clark, Director
Programming and Operations
KCTS-TV Seattle

Robert Ellis, General Manager
KAET-TV Tempe
Arizona State University

Hugh Fisher, Vice President for Programming
WMFE-TV Orlando
Orlando, Florida

Myron Tisdel, Program Manager
KAID-TV Boise
Boise State University

Paul Steen, General Manager
KPBS-TV San Diego
San Diego State University
(SCEPAL Executive Committee Member)

Jack McBride, General Manager
KUON-TV Lincoln
University of Mid-America
(SCEPAL Executive Committee Member)

Chicago, October 18–19, 1979: College Administrators

Robert Carter, Coordinator
Telecommunications Consortia
Council on Higher Education

Ralph Doty, President
Vermilion Community College
Ely, Minnesota

Sister Eileen Egan, President
Spalding College
Louisville, Kentucky

Marlowe Froke, Director
Media and Learning Resources in Continuing Education
Pennsylvania State University, University Park

Curt Johnson, President
Metropolitan Community College
Minneapolis, Minnesota

Erling Jorgensen
Associate Director of Academic Services
Michigan State University, Lansing

APPENDIX B:
STATE FINANCIAL SUPPORT TO INSTITUTIONS FOR TELECOURSE OFFERINGS

The following report summarizes the results of research conducted by the Coast Community College District on state financial support for telecourse offerings. The question we sought to answer was, "Do public institutions receive funding from the state for telecourse instruction, and, if so, under what conditions?" The information reported was gathered in telephone interviews with faculty and administrators at institutions that have offered telecourses and with instructional television personnel at public television stations in the fifty states and the District of Columbia. After a brief introduction, the report presents our findings in tabular form and brief entries for each state.

In the course of our research we found that since telecourses are a very recent innovation, there are few formalized state or system-wide policies that specifically identify telecourse instruction for purposes of state support. More often, telecourses are absorbed into an existing budgetary category and may be treated differently from one institution to another within the same system. Consequently, the information presented here represents the experience and current practices of institutions that have offered telecourses.

The relative abnormality and variation in the treatment of telecourse instruction for budgetary purposes within a state, combined with the diversity of funding procedures from state to state, make any generalization potentially misleading. Moreover, neither the fiscal details of state financing of higher education nor the status of telecourses per se are stable. In many instances we found that institutions are planning to or are in the course of attempting to have telecourse instruction reclassified as regular instruction for purposes of state assistance, so our findings must be seen as somewhat conditional.[1] However, with these cautions, some summary statements can be made.

State funding for telecourse instruction may be in the form of direct support or indirect subsidization, and both have variations. In a few instances, state legislatures and/or agencies of higher education have established separate instructional arms, sometimes affiliated with an academic institution, to provide televised instruction at the college level.[2] In other instances, the state provides a specifically mandated, direct subsidization to the institution based on its per credit hour ("FTE") enrollment in telecourse.[3]

Indirect financial support for telecourse instruction may come to an institution via its use of full-time equivalent enrollments in telecourses as part of its budget-request mechanism to the state. Since these mechanisms are generally subject to negotiation with state legislatures and since the funds requested may not be returned to the telecourse-offering unit of the institution, this type of state support is generally considered to be indirect. Finally, some administrative costs of a telecourse offering may be state supported when the instruction is offered through divisions of Extension or Continuing Education.

While we found that the category of instruction, level of instruction, subject matter, and student characteristics may all affect the eligibility of a particular telecourse for state support, one major dimension along which there was a consistent distinction in state funding was by type of institution.

As a general statement, the costs of offering a telecourse in four year institutions are most often met by income from student tuition and outside (nonstate) sources of support, while in two year institutions, costs are partially or fully met by the state. This is in part because telecourses are almost exclusively offered in four-year institutions through divisions of Continuing Education, a category of instruction not generally eligible for state assistance. We found, however, that in many cases a telecourse would receive state funds if it were offered through a regular academic department.

Two-year institutions, on the other hand, are mandated to offer a more varied and nontraditional program of instruction. Consequently, telecourse instruction is more often considered part of the regular instructional mission of the institution and receives state financing.

The information in the following summary tables is organized by type of institution and method of support. Information on a particular state can be found by reading the individual entry. Detailed information on individual state practices, examples, and experiences, from which the entries were summarized, is on file in the

1. See the state entry for Virginia for example.
2. See Indiana, Ohio, and Oregon for example.
3. California community colleges are instances of this practice.

office of Telecourse Design/Research of Coastline Community College, and available for those who are interested

References

Augenblick, John. *Issues in Financing Community Colleges.* Report No. F-78-4. Denver: Education Commission of the States, 1978.

Gross, Francis M. "A Comparative Analysis of the Existing Budget Formulas Used for Justifying Budget Requests or Allocating Funds for the Operating Expenses of State-Supported Colleges and Universities." Ph.D. dissertation, University of Tennessee, 1973.

Wattenbarger, James L., and B. N. Cage. *More Money for More Opportunity. Financial Support of Community College Systems.* San Francisco: Jossey-Bass, 1974.

Table 1

In the following states, the costs to an institution offering a telecourse are met in part through state financial assistance, generally based on student full-time equivalent hours (FTE). The amount of state assistance varies by type of institution and category of instruction in many instances. State assistance is usually applicable to credit instruction only. [*Indicates the situation may change in the near future.]

All public institutions of higher education in
1. Arizona
2. Florida
3. Kansas
4. Kentucky
5. Maryland
6. New Jersey*
7. North Carolina
8. Oregon
9. South Carolina
10. Tennessee
11. Texas
12. West Virginia (variations at the four-year level)
13. Wisconsin (Extension courses receive only a 15% of cost subsidy)
14. Virginia* (currently telecourses receive 50% of regular course subsidy)

Four-year public institutions in
1. Louisiana
2. Mississippi (varies from 60% to 100% of regular subsidy)
3. Ohio (Ohio University receives less than the regular subsidy)

Two-year public institutions in
1. Alabama
2. California
3. Colorado (locally supported community colleges only)
4. Connecticut
5. Georgia
6. Illinois
7. Iowa
8. New York
9. Washington

Table 2

In the following states, the cost to an institution of offering a telecourse must be met through student tuition, outside sources of support, or discretionary funds. State financial assistance to the institution is not currently applied to the costs of telecourse offerings. [*Indicates the situation may change in the near future.]

A. All public institutions of higher education in:
1. Alaska
2. Hawaii
3. Indiana
4. Maine*
5. Michigan* (except Wayne State University degree-oriented courses)
6. New Hampshire
7. North Dakota
8. South Dakota
9. Vermont

B. Four-year public institutions in
1. Alabama
2. California
3. Colorado
4. Connecticut
5. Delaware (some state assistance for teacher education)
6. Idaho
7. Illinois* (the University of Illinois only)
8. Iowa
9. Minnesota
10. Missouri (the University of Missouri only)
11. Montana
12. Nebraska
13. New Mexico
14. New York
15. Washington
16. Utah

C. Two-year public institutions in
1. Massachusetts (where telecourses are offered through evening colleges)
2. Mississippi

Table 3

In the following states, there have been no broadcast telecourses actually offered by:

A. Any public institution in
   1. Arkansas
   2. Delaware
   3. Nebraska (except through the University of Nebraska)
   4. Oklahoma
   5. Wyoming
   6. District of Columbia

B. Four-year public institutions in:
   1. Massachusetts

C. Two-year public institutions in
   1. Idaho
   2. Louisiana
   3. Missouri
   4. New Mexico
   5. Utah

In Nevada and Oklahoma, experience with telecourse offerings has been too isolated to determine whether state financial assistance would be available. The situation also applies to two-year institutions in Minnesota.

SUMMARY STATEMENTS

Alabama
At the two-year level, telecourses are regarded no differently than regular courses and are included in FTEs. (This is a formula state.) Telecourses must be self-supporting in four-year schools.

Alaska
At both two- and four-year institutions, telecourse use is low. Telecourses are offered through departments of continuing education and must be self-supporting. Students are charged $20.00 per credit hour.

Arizona
At both the two- and four-year levels, telecourses are not distinguished from on-campus instruction. The state reimburses on the same basis as it would other modes of instruction.

Arkansas
At four-year institutions, telecourses are considered "off-campus" courses, and do not receive state funding. At two-year schools, it appears that telecourses are funded in the same way as traditional, on-campus courses. However, it seems that funding for community colleges is on an individual basis according to county/region elections that request millage.

California
In community colleges, the FTE reimbursement formula is the same for telecourses as it is for on-campus courses. In both the California state universities and the University of California, if telecourses are offered through the Extension division, they must be self-supporting. If a telecourse were to be offered through an academic department, then enrollments would generate FTEs.

Colorado
Community College of Denver reports that "extended campus" programs are counted toward FTEs and that funding is on the same basis as on-campus courses. At the four-year institutions, telecourses would be considered part of continuing education, and must be self-supporting.

Connecticut
At the two-year level, telecourses are supported by money from the "general fund," that is, state assistance. State assistance, however, is not tied directly to enrollments (situation similar to California). At the four-year level, telecourses are funded through the Extension College and not out of the general fund. Therefore, telecourses must be self-supporting.

Delaware
There is no PBS station in Delaware. The University of Delaware in Wilmington has picked up broadcasts by Channel 12 in Pennsylvania. The University of Delaware in Newark reports that they have found telecourse offerings are not justified by the very small enrollments and lack of support. There is no official formula for reimbursement for the university or the four campuses of the community colleges in Delaware. State allocations are based on budget hearings with the legislature, and none of the funding is dependent on credit hours.

District of Columbia
There are no telecourses being offered in Washington D.C. institutions at this time.

Florida
Community colleges that offer telecourses do not distinguish them from traditional classes for the purposes of reimbursement. This is also true on the four-year level.

Georgia
There is little experience in offering telecourses in this state. The choice to participate in telecourse offerings is left up to the individual schools. If telecourses are offered as approved courses to regular students at the junior college level, the college will receive FTE reimbursements.

Hawaii
Community colleges are part of the University of Hawaii system. All telecourses are currently offered under the auspices of Continuing Education, and must therefore be self-supporting. Some of the administrative salaries are covered by general funds, but tuition is charged and the state does not provide reimbursement for telecourse enrollments.

Idaho
Idaho is not a formula state. Telecourses are offered through the departments of continuing education at the four-year level. These must cover program costs through tuition, but basic departmental operating costs are paid by the university. Thus far, no prepackaged telecourses have been used, but the wrap-around type has been. When the wrap-around was offered, the costs of copying the video materials and the like were credited to the Department of Continuing Education if these courses were to be kept by the school. However, station KBGI would use their own tapes and erase them when the broadcasting of the series was complete if the college did not plan on keeping the programs. Two-year colleges have offered telecourses through Continuing Education for credit and noncredit. If for credit, they count toward FTE; if not, they don't.

Illinois
At the two year level, the state makes no distinction between telecourses and on-campus courses. State aid is based on the number of credit hours generated by the type of instruction, e.g., vocational, general education, or the like. In some instances, telecourses are placed in an extension category and this decreases state assistance. Therefore schools are hesitant to offer telecourses, especially since extension courses have to be self-sustaining. Higher tuition than usual is mandated for television course students. At four-year schools, monies come directly from the regular operating budget of the university. The budget is not tied to enrollment, and Continuing Education at the University of Illinois receives state financial support from the university itself. Tuition collected goes to the state and is then reallocated back to the educational institution. At the university, funding is not on a zero-based, enrollment-driven formula. The previous year's budget is used with an increase included. The university receives a fixed amount from internal general funds for continuing education programs including telecourse.

Indiana
State financing of higher education is not formula-based in Indiana. Telecourses are financed by the institution, usually through departments of Continuing Education. Telecourses must be self-supporting. Please see Addendum.

Iowa
Community colleges receive FTE credit for telecourse enrollments. The state makes no distinction between on-campus and television courses. State subsidies are not wholly dependent on FTE count, the formula is more complex. On the four-year level, there is no state assistance for telecourse enrollment. Telecourses must be self-supporting financially.

Kansas
At the four-year institutions, telecourses are considered part of the regular instructional base and generate FTEs. At two-year schools, financing is from two sources, the county and the state. If telecourses meet the established requirements (approved by both the college and state boards), telecourses qualify for subsidies. However, noncredit telecourses must be self-supporting.

Kentucky
At both two- and four-year schools, telecourses generate FTEs and are not distinguished from traditional instruction for state reimbursement purposes. The state appropriates money to the Council for Higher Education to lease and advertise telecourses. The public television station uses its state funds to broadcast these courses. Each educational institution has the option of offering telecourses for credit or on a continuing education basis. If a course is offered for credit, tuition is charged and the school keeps this money. The state then reimburses the school on the basis of enrollment.

Louisiana
For the purposes of state reimbursement, telecourses are considered the same as any other on-campus credit course and generate credit hours at both two and four-year schools. The higher the instructional level, however, the larger the reimbursement.

Maine
At this time, telecourses are considered part-time/adult learning and do not receive state subsidies for enrollments. Telecourses are offered through departments of Continuing Education. This is true for both two- and four-year institutions. However, this situation is only temporary because experience with telecourses should be growing in the future.

Maryland
Both two- and four-year schools receive FTE credit for telecourse enrollments.

Massachusetts
There is no state support for evening college courses, and telecourses are offered through the evening college. No four-year schools are offering telecourses at this time.

Michigan
Telecourses are considered as continuing education courses, and there is no per credit state support given to continuing education. Although continuing education is supposed to be self supporting, the administration of these types of courses is supported by some aid from the state to cover salaries and the like, but the assistance is not "official." None of the two- or four-year schools in the state system receive aid for telecourse enrollment. However, Michigan State University, University of Michigan at Ann Arbor, and Wayne State University, which are under autonomous boards, have also not received aid for telecourses.

Minnesota
At the University of Minnesota, telecourses are considered off-campus courses and therefore do not generate FTEs. It is left up to the individual colleges to designate a telecourse as an off-campus course or as part of regular departmental offerings. If the latter is the case, then telecourses would generate enrollments that would be counted as FTEs. At two-year schools, telecourse costs are covered by state assistance and tuition. The community colleges offer almost no telecourses at this time because schools have difficulty "breaking-even." Both community colleges and state universities are on a per student funding basis that is currently under attack in the state legislature.

Mississippi
Two-year schools do not receive state assistance for students who attend class before 8 a.m. or after 6 p.m. and or who are enrolled for less than twelve units of credit. Since telecourses have not generally been considered part of the instructional base, few two-year schools offer them. At the four-year schools, telecourse students are recorded as part of regular enrollments. Some institutions report these enrollments as full time, others as extension enrollments at a rate of 60 percent of full time enrollments.

Missouri
At the University of Missouri, telecourses are financed from three sources, all internal to the university itself. The sources are a small University of Mid-America grant, tuition and fees, and funds from the contingency fund. There is no experience in the state colleges with telecourses.

Montana
At the four-year level telecourses have been offered through Continuing Education divisions and must be self-supporting. We were told of no two-year institutions that were offering telecourses.

Nebraska
Community colleges and state colleges have not yet used telecourses. At the university level, telecourses are offered through the departments of Continuing Education. Enrollments are not included in the departmental budget requests nor used in any FTE or budget calculations. Telecourse enrollments are looked at in the state legislature when the university's budget allocation is discussed, but there is no direct formula used. Apparently, telecourse enrollments do not have any significant impact on telecourse funding.

Nevada
Nevada seems to have little experience in offering telecourses for credit. However, state assistance to higher education is not tied to enrollments.

New Hampshire
Telecourses are offered through departments of Continuing Education. Funds for the telecourses come primarily from tuition. Telecourses must be self-supporting. Administrative costs are partially borne by the state but rental costs, advertising costs, etc. must come from other sources. There are no junior or community colleges in New Hampshire. There are a few vocational/technical colleges, but none are offering telecourses at this time.

New Jersey
Reimbursement patterns vary considerably in New Jersey. In general, community colleges in New Jersey treat telecourses as part of the instructional base and receive FTE assistance from the state. At the four-year level, individual institutions determine whether they will offer telecourses through departments of Continuing Education (not counted toward FTE), or as part of the regular instructional base. Part-time students may or may not be included in FTE tabulations.

New Mexico
Although New Mexico is a formula-financed state, telecourse offerings have not been counted toward FTEs because they have been offered through departments of Continuing Education. Continuing Education courses do not generate FTEs. If a telecourse were to be offered through a regular department, it is feasible that it would generate FTEs. This seems true for both two- and four-year schools.

New York
At the two-year level, if a telecourse is offered for credit, it generates the same FTEs as an on-campus course. The FTE money varies according to the individual institutions. If the course is not offered for credit, the course is evaluated on whether it falls into the area of personal improvement (does not qualify for state aid) or into the categories of occupational education or community needs. If the course fits one of the latter categories, the enrollments generated are treated in the same manner as in-campus courses. At the four year level most telecourses are in Extension or Con-

tinuing Education Divisions and are not supported for direct expenses

North Carolina
In the community colleges, any credit course would receive FTE credit However, at the university level, there is no institution-wide policy on credit for telecourses The decision of how to treat telecourses is an individual one. If a television course is offered for credit, then FTEs will be generated There is no distinction between telecourses and traditional, on-campus courses for reimbursements Private institutions may or may not receive state assistance.

North Dakota
To date, use of telecourses in North Dakota has been very slight Telecourses have been offered as off-campus courses and therefore do not affect state funding of the various educational institutions. Because of a grant/subsidy from the University of Mid-America, telecourses have been offered cost-free thus far

Ohio
Ohio is basically an enrollment-driven subsidy state At both two- and four-year levels, telecourses are generally considered part of the independent study program and generate FTEs However, the rate of reimbursement received is less than for regular, on-campus instruction. At Ohio State University, there is no distinction between regular on-campus courses and television courses. Enrollment is counted as part of the instructional base and generates FTEs Please see Addendum

Oklahoma
There have not been any recent offerings of telecourses in Oklahoma because it was not a profitable venture for institutions. According to the director of a closed-circuit system owned by the regents of higher education in this state, this sytem does not purchase packaged course materials They do live broadcasts only, and these courses are considered by the state as credit courses

Oregon
Television courses are offered through the "Campus of the Air" broadcast over OI-PBS (Oregon Educational Public Broadcast System), a state-owned network Campus of the Air operates as a department of Continuing Education would except that they are not affiliated with any particular academic institution The credit earned by the student through participation in telecourses is acceptable for transfer credit at any institution of higher education in the state OI PBS is funded by the state

Pennsylvania
There are four different patterns of state financing of post-secondary institutions in this state. None of them is directly tied to credit hours or enrollments

1 Commonwealth universities (University of Pittsburgh, Temple University, Pennsylvania State, and Lincoln University) each have separate boards of trustees Their state appropriation funds are not tied to credit, telecourse enrollments do not affect allocations

2 Private colleges receive limited funds for instructional support, but this support is not based on enrollments

3 Community colleges are funded by one-third local government funds, one-third state funds, and one-third by tuition generated locally. The amount of support from each sector is tied to the other. The amount of support any individual school receiyes varies, and whether this limits enrollments depends on the contribu ion of the local government directly participating. If community colleges do offer telecourses, then the tuition generated would affect the amount of state aid received by that institution.

4 The Pennsylvania state college and university system, Indiana University of Pennsylvania and state colleges are administered by the Department of Higher Education Appropriations are not tied to enrollment, all monies except tuition are granted through the state

Rhode Island
Telecourses in Rhode Island are offered through Continuing Education divisions and are generally required to be self-supporting. The public television station WSBE coordinates a course offering, handles organizational details, then bills the individual college for the costs of renting the programs, publicity, and fees to instructors. Thus f r only Rhode Island College and the University of Rhode Island (both four-year schools) have offered telecourses. There is some discussion of possible cooperation of these two institutions and Rhode Island Junior College

South Carolina
Telecourses are considered the same as regular courses for FTE. Students pay the same registration fees, tuition, etc There are no true community colleges in South Carolina, only branches of the University of South Carolina that offer two-year programs. There are some technical colleges Although telecourses are handled under the auspices of continuing education, they generate FTEs from the state if the telecourses are given for credit.

South Dakota
Telecourses are offered through departments of Continuing Education and do not generate FTEs as other on-campus courses do. Telecourses must be self-supporting There are no separate, state-controlled, two-year institutions in South Dakota. South Dakota State University, which does have two-year, vocational/tech-

nical programs, may be offering telecourses in conjunction with the University of South Dakota in the future

Tennessee
Although experience with telecourses at the two-year level is limited, one community college reported that it did offer a telecourse and charge tuition. Subsequent enrollments were included in the FTE report. At the University of Tennessee, telecourses are treated as regular, resident courses Enrollments are counted toward FTEs This is true at other state colleges as well

Texas
It appears that at both two- and four-year schools, the state of Texas does not differentiate between a regular, on-campus course and a telecourse for purposes of reimbursement. The state has a "contact-hour funding rate" applicable to on-campus courses. If a telecourse enables a student to meet the same learning objectives or master an equivalent amount of material, the telecourse will generate FTE on the basis of the number of contact hours occurring in the on-campus course.

Utah
Several wrap-around telecourses were offered in the past at the University of Utah through the department of Continuing Education. The offerings were financed through tuition, but enrollments were quite low. The program has since been dropped.

Vermont
All institutions using telecourses must establish the course as self-sustaining. State assistance is not available Telecourses are generally offered under continuing education; Vermont has not accepted the concept of "learning at a distance" at this point.

Virginia
Four-year institutions in Virginia receive "matching funds" based on enrollment figures for telecourses The status of state reimbursements for telecourses at the two-year level is in a period of change. The State Board for Community Colleges has approved a measure that would consider telecourses in the same fashion as on-campus instruction, but the State Commission on Higher Education has not yet approved this new measure

Washington
Two-year institutions in Washington receive money on an FTE basis Telecourse enrollments are considered part of the instructional base and therefore generate FTEs as would any other on-campus course. In the State Universities and the University of Washington, however, they are located in the Extension divisions and must be self-supporting.

West Virginia
The West Virginia Board of Regents is the governing body for all state public institutions of higher education. The Board allocates $40,000 per year to pay broadcast rights and royalties for telecourses. If the telecourse is offered for credit, each institution could report enrollments as part of their FTE count; however, increased enrollments do not guarantee an increase in funding to the individual institution. The allocation formula operates more as a baseline or guideline, not a strict formula In community colleges, the same method of funding is used. If the telecourse is offered for credit, those enrollments can be reported.

Wisconsin
At two- and four-year schools, telecourses receive full FTE assistance and are treated the same as on-campus courses. If telecourses are offered through the Extension division at four-year schools, they generate Extension division FTEs; however, these types of courses must be 85 percent self-supporting.

Wyoming
There is no PBS station serving the whole state of Wyoming and there are no broadcast telecourses offered at this time.

ADDENDUM

Indiana
The Indiana Higher Education Telecommunications System (IHETS) is charged to provide a range of telecommunication services, including closed circuit telecourses, to all higher educational institutions in the state. IHETS is wholly state-financed.

Ohio
The Independent Study Through Correspondence program, affiliated with Ohio University at Athens, is charged with making correspondence instruction available throughout the state and receives direct state funding for all its instructional offerings, including telecourses

APPENDIX C:
SELECTED REPRESENTATIVE CONTENTS OF A TYPICAL ACADEMIC AND ADMINISTRATIVE SUPPORT PACKAGE*

GENERAL SUGGESTIONS FOR ADMINISTERING THE COURSE

Offering a total television course for credit to students requires a total institutional effort if the course is to be successful. One of the challenges is to divide responsibility for organizing the details of the course among various departments and staff members of your college

We suggest three major areas of involvement with appropriate responsibilities for each:

1. Administration: registration and enrollment
   classification of the course
   faculty assignment
   support services
   financial considerations
   securing of television time
   ordering print materials
2. Faculty. conducting the course
   student support services
   information on television students
   student evaluation procedures
3. Publicity. promotional activities to publicize course and facilitate registration

The experience of colleges offering television courses suggests that a planning team representing these jurisdictions of the colleges be convened two or three months in advance of the beginning of the course if it is possible to do so.

ENROLLMENT SUGGESTIONS

Demographic analyses of various programs employing the Open University approach to education reveal that such programs often attract a unique audience. This audience consists of the homebound (housewives, handicapped, aged), retired persons, employed individuals who are prevented from availing themselves of traditional educational opportunities, members of the community who lack transportation or who are geographically distant from centers of traditional instruction, and persons who recognize the opportunity for independent or self-reliant instruction as well as students taking on-campus courses

If your institution wishes to utilize fully the chance to serve these new audiences, it is recommended that special effort be made to:

- communicate with these potential students, many of whom probably are not on your existing mailing lists
- streamline registration procedures to insure convenience for prospective students
- make sure that local course requirements offer options to campus attendance (see "Support Services" section)

Promotional Efforts

Experience with television courses has shown that student enrollment is closely correlated with promotional activities. Consequently, a press kit has been assembled for your use (see "Publicity Materials" section). Your planning team will want to work with your college public relations staff to design an effective program of communications. Some items to consider are:

- *Mailers*—The pages of logos and artwork in the "Publicity Materials" section can be used to prepare a simple flyer typed on a typewriter. It is particularly effective to include a registration-by-mail form.
- *Target Audience*—Identify groups in your community who would have special interest in this course. Some examples could be: school teachers, staff and members of day-care centers, nursery schools, civic clubs, members of the local PBS station, members of nearby PTA groups, church groups, and—in some cases—shut-ins and institutionalized individuals. Flyers could be distributed to libraries, day-care centers and nursery schools children's stores, supermarkets, maternity clinics, convalescent and retirement communities, and to on-campus centers such as the adult education office.
- *Newspapers*—Send out news and feature articles (samples included in "Publicity Materials" section) or purchase advertisements in your local papers Consider including a registration form in the newspaper display.
- *Radio and Television*—Nonprofit institutions are eligible for public service radio and television time Offer spot announcements and slides as well as brief news releases. In addition to the announcement of the details of the course, consider scheduling an interview with the course facilitator or discussing the possibilities of television courses for college credit with a local celebrity

Additional suggestions can be found in the "Publicity Materials" section. It is a good idea, however, for all promotional materials to reflect clearly that this *is* a college level course and that reading assignments as

*Extracted with permission from Administrative Package for *The Growing Years*

well as television time are part of the course requirements. This information is necessary for the student making a decision to register for the course and to persist with it.

REGISTRATION TECHNIQUES

Ease of registration is most important for insuring a strong response from students. If your college has not used a mail-in registration procedure, it should consider this method as a possibility. A procedure is required that will serve to enroll the student in the course and insure that she or he receives detailed information and text materials shortly thereafter.

Procedures must also be set up so that students already enrolled in the college can register for *The Growing Years* if they desire.

Several items must be considered in developing registration procedures:

- While there are no prerequisites for the course, your college may wish to specify minimum educational levels or other requirements for registering.
- You should be sure to provide information on course fees, if any, as well as the cost of the print materials.
- How does the course fit into the college curriculum? If it can be transferred or counted towards a degree, the student should be informed of these considerations.

Your registration procedures and promotional efforts interact in a number of ways. To increase the effectiveness of each:

- In your promotion for the course (brochures, ads, news articles) list a phone number to call for further information. Be sure that the person who answers that number has complete information on the course and will be available to talk to callers continuously during normal business hours.
- If your promotion consists of putting up posters or sending out brochures, print a registration form and fee information right in the pieces so students can enroll directly.
- If you have an "information line" be sure that the person answering the phone has a stack of enrollment cards and additional printed information available; if a potential student calls, a card and information can be sent out immediately.
- Keep a complete file of the names and addresses of people who call to inquire. Use every opportunity to build a mailing list.

In addition to planning the registration procedures, attention should be given in advance to what materials should be mailed to the student after registration. Unless students receive some immediate acknowledgment, they may not feel they have successfully completed registration. Immediately upon receipt of the registration form, the college should prepare a set of mailing labels and a letter to be sent to the student from the course instructor describing the course in more detail. Suggested items to be discussed in the letter are:

- Complete course requirements.
- Print material, including information about which books are required or suggested as optional, their costs, and how to purchase them. Include a mail order form if your bookstore is willing to handle orders in this way.
- Course schedules, including a viewing schedule for the broadcasts on the local TV station.
- Time and place of discussion groups, study sessions, and exams.
- Name, phone number, and office hours of course instructor and other personnel assigned to assist students in this course.
- Other college services available to the student, such as the library, media center, counseling, and off-campus discussion groups.
- Any other pertinent information.

Some samples of materials sent to students enrolled in another television course are given in the "Academic Materials" section in this notebook.

COURSE APPROVAL

Every college and university has its own procedures for faculty consideration and approval of new courses, and a course offered by television follows essentially the same procedures. However, the following suggestions, based on the experience of educational institutions associated with instructional television, may prove helpful.

A faculty member or division should preview the course and sponsor it through the academic review process. Often an administrator or chairman will know one or two instructors who would welcome the opportunity to work on an innovative assignment. The initial selection of the academic sponsor may determine the division or department that will offer the course. After having found one sponsor, administrators should also communicate with adult education or extension divisions about the possibility of offering the course.

At some point the course will be reviewed by an academic council or curriculum committee. A course outline must be prepared, usually by the faculty or departmental sponsor, providing details of the course such as expected enrollment, course goals, and description of text material. Sample course outlines for two- and four-year institutions are found on the following pages.

SAMPLE COURSE OUTLINE—TWO-YEAR INSTITUTIONS

Date _____

Division _____

Instruction _____

I COURSE _____ THE GROWING YEARS 3
Name No Descriptive Title Units

II CATALOG DESCRIPTION
Prerequisite None

A basic course covering the development of the child from earliest womb environment through adolescence. Examines the interplay of biological factors, human interaction, social structure and cultural forces in shaping the growing child. Major psychological theories are introduced and followed through various stages of development. The course is developed in a series of 30 television programs supported by coordinating textual material and by additional print materials. Film programs will be broadcast by KOCE-TV (Channel 50) in half-hour segments twice weekly for 15 weeks.

III TIME ALLOCATION

	Hours/Week		PLEASE CHECK
Lecture	_____		_____ Fall
Lab	_____		_____ Spring
Demonstration	_____		_____ 9 Weeks
Other	XX	(Explain) two 30-minute television programs per week for 15 weeks.	_____ 18 Weeks

IV COURSE GOALS AND OBJECTIVES (skills, attitudes, and knowledge a student may develop from this course)

1. Recognize genetic, biological, environmental, and sociocultural influences on development.
2. Identify and discuss some of the most important aspects of normal physical, mental, and personality development.
3. Relate child development research and theory to real-life situations.
4. Recognize the diversity of approaches in child development research and theory.
5. Distinguish between the popular conceptions of rigid developmental stages and the actual flexibility that occurs in the developmental process.
6. Demonstrate openness and objectivity toward issues, theories, and orientations in child development.

V PURPOSE OF THE COURSE

General Education	X	Remedial	
Adult Education	X	Occupational	X
Transfer	X	Community Service	X

VI COURSE CONTENT (outline of course content leading toward goals and objectives)

Course consists of thirty half-hour television programs created by Coast Community College District and produced by KOCE-TV (Channel 50). Programs will be broadcast in half-hour segments on a twice weekly basis. The programs are:

Introduction
Studying Children
Heredity and Environment
Prenatal Development
The Newborn
The Growing Infant
The Learning Infant
Beginning Language
The Emerging Personality
Individual Differences
Preschool Physical Development
Nutrition
Preschool Mental Development
Developing Language Skills
Preschool Personality
Social Stereotyping
Child's Play
The Preschool Experience
The Child's Mind, Part I
The Child's Mind, Part II
Aspects of Intelligence
The Child's Personality
Moral Development
Aspects of Socialization
Childhood to Adolescence
Adolescent Personality Development
Adolescent Mental Development
Children in Families
Adolescence to Adulthood
Conclusion

VII LEARNING STRATEGIES OR TEACHING METHODS

lecture

audio tutorial laboratory

audio and/or visual tutorial segments available in media center or classroom

small-group instructor

team teaching

X other (specify) Open Circuit Television/Print Materials

VIII EVALUATION METHODS

A bank of multiple-choice, short answer, and essay test questions will be available in the Administrative Package.

IX COURSE MATERIALS

Required: Textbook: A Child's World: Infancy Through Adolescence, 2nd ed. by Diane E. Papalia and Sally Wendkos Olds (McGraw-Hill, 1979) is one of the most widely used child development textbooks in higher education institutions in the United States. Noted for its clear, informative writing, the text reviews recent research in the field, presents concepts in an understandable fashion, and takes a non-sexist, non-racist approach to the materials. Length: 672 pages.

The Growing Years: a Study Guide for the Televised Course, 2nd ed. by Philip I. Kaushall and Kiki Skagen is designed to assist students in viewing the programs. It integrates the video portion with the textbook, suggests study activities, and provides additional readings on specific topics and issues. The chapter order parallels the TV programs. Approximate length: 253 pages.

SAMPLE COURSE OUTLINE—FOUR-YEAR INSTITUTIONS

COURSE TITLE The Growing Years

DESCRIPTION A child development course covering growth from the earliest womb environment through adolescence. Concerned with interplay of biological factors, human interaction, social structure, and cultural factors in shaping development. Major psychological theories introduced and followed through various states of growth.

CREDIT Three units of lower division credit.

TIME ALLOCATION One hour of television viewing per week; reading assignments. Two contact sessions on campus during the semester will be required.

COURSE CONTENT The course will be divided into 30 units corresponding to the bi-weekly television programs. These are:

Introduction
Studying Children
Heredity and Environment
Prenatal Development
The Newborn
The Growing Infant
The Learning Infant
Beginning Language
The Emerging Personality
Individual Differences
Preschool Physical Development
Nutrition
Preschool Mental Development
Developing Language Skills
Preschool Personality
Social Stereotyping
Child's Play
The Preschool Experience
The Child's Mind, Part I
The Child's Mind, Part II
Aspects of Intelligence
The Child's Personality
Moral Development
Aspects of Socialization
Childhood to Adolescence
Adolescent Personality Development
Adolescent Mental Development
Children in Families
Adolescence to Adulthood
Conclusion

EVALUATION METHODS A mid-term quiz and a final examination composed equally of multiple choice and short-answer essay questions will be required of all students.

READING MATERIALS

1. Papalia, Diane E., and Sally Wendkos Olds, A Child's World: Infancy Through Adolescence, 2nd ed. (New York: McGraw-Hill), 1979.
2. Kaushall, Philip, and Kiki Skagen, The Growing Years: A Study Guide for the Televised Course, 2nd ed. (New York: McGraw-Hill), 1979.

THE INSTRUCTOR'S ROLE

Colleges and universities planning to use the television course *THE GROWING YEARS* must naturally consider the matter of academic credit and which divisions or departments are appropriate for offering the course These reasons predicate a need for early involvement of faculty in reviewing and planning the course at your college

The responsibilities and role of the instructor will be determined by the format, the student group, and available resources. Given the nature of the materials for the course there are a wide variety of roles open to the individual in charge of it Some of them are listed in the following

Course Format	Possible Faculty Role	Possible Responsibilities
Regular undergraduate or extension course	Traditional instructor	Explain textbook and film content Amplify correlation between texts and video Provide additional information Answer questions Moderate class discussions Administer exams Make additional assignments Set course goals other than or in addition to the study guide
	Discussion leader	Basically leaves "instruction" up to the study guide, but functions as a moderator of class discussions, administers exams, and answers
	Coordinator	In addition to carrying out either of the above two roles, brings in outside speakers, panelists, films
Nontraditional course with one or more "contact sessions"	Traditional instructor, with limitations	Because of the limited number of classroom meetings, relies heavily on the study guide, but Maintains communication with students either by letter or phone to get them started and give them encouragement Maintains regular office hours so that students can phone or come in with questions during meetings, performs any or all of the functions of "traditional instructor" or "coordinator" above
Nontraditional course with no class meetings	Traditional instructor "in absentia"	By letter and phone conversation Explains textbook and film content Amplifies correlation between texts and video Provides additional information Answers questions that students mail or phone in Administers exams by mail Regularly contacts students to "check up" on progress Maintains regular office hours so that students can phone in questions
	Tutor	Performs functions of "in absentia" instructor above, but holds regular, scheduled meetings with each student individually, either on campus or student's home or elsewhere
	Resource person or course manager	Relies heavily on study guide for instruction, but Maintains regular office hours so that students can phone or come in with questions Administers exams by mail Checks up on students' progress by phone or mail

Other miscellaneous responsibilities that may be required of the instructor

- answer students' questions about course operation (in addition to course content)
- appear on local radio or TV programs or be featured in a news article for course publicity
- write or adapt the examinations from test banks provided in facilitator-faculty section
- counsel individual students on more directly fulfilling personal interests with the context of the course
- put copies of course books or other related material on reserve in the campus or local library

STUDENT SUPPORT SERVICES

Supplementing the television programs and print materials with *campus-based activities and services* plays an important part in establishing this course as a satisfying experience for both you and your students. A familiar drawback of correspondence instruction is that students feel they are participating in a very impersonal process. Students need to know that you are just as concerned about them as individuals as you are about on-campus students.

A somewhat contrary consideration – though just as important to the success of the format – is that you should not require students' attendance on campus any more than is absolutely necessary if you hope to reach the new student audiences (housewives, handicapped, homebound, geographically isolated, or employed individuals) to whom the format is especially suited.

These seemingly opposite considerations can both be met with a little ingenuity. Instructors can provide telephone office hours to answer individual questions about content. Informational materials relevant to course requirements, reading assignments, due dates, and so forth can be sent through the mail.

Many students can derive a great deal of stimulation from an opportunity to meet in person with their local instructor. These students are motivated by the chance to visit the campus and to feel a part of it. To meet the needs of these students we recommend that you set up two or more campus "contact sessions" that bring them in contact with the local instructor. These sessions should, however, be strictly *optional* so that students who cannot attend are not inconvenienced. Summaries of the sessions can be mailed to those students who are unable to attend.

The contact sessions themselves may be conducted as seminars, question-and-answer sessions, review periods, or supplementary lectures. Frequently, student questions at these sessions deal as much with *process* (how is the course conducted, what are the requirements, what is the optimum study approach, and so forth) and *institutional information* (such as what is the nature of the credit, what requirements does it fulfill, can the credit be transferred) as they do with *content*. Your instructor should be well briefed to handle these questions, or given the name and phone number of an individual who can provide answers.

Many colleges will be offering *The Growing Years* to students living quite a distance from the campus or for whom frequent trips to the campus for a discussion group would be a hardship. In these cases, consideration should be given to the possibility of holding class discussion groups in off-campus centers. Discussion groups could be held wherever twenty to forty students could easily meet—for example, in a large business firm during lunch hour or after work, a community school or a community center, a church building, library, or even in students' homes. Faculty members or student discussion leaders could be assigned to such groups.

Some colleges, wanting to stimulate informal contact between students taking telecourses, offer a referral service to students when they register. Zip code lists of enrolled students compiled from enrollment records are used to initiate peer discussion groups. On the registration card students were asked whether they wanted to have their name and address shared with other students wanting to set up groups for viewing and discussion. The students then contacted each other without the aid of the college to establish meeting times and places.

Other special communications facilities and techniques available to your campus can be profitably employed to reach students in distant locations, and to enrich and personalize the core learning experiences. Your imagination provides the only boundary.

Use of Existing Campus Services

If possible, it is desirable that students enrolled in television courses be entitled to use any campus service normally available to on-campus students. Information should be given them concerning library hours and, where appropriate, counseling facilities, the student union, athletic card, and the student health center. In turn administrators of these services must be informed of the needs of television students so that they can plan accordingly. For example, your library might want to arrange a display calling attention to the course, and librarians might wish to purchase and put on reserve those books that are suggested for supplementary reading.

Study Sessions for Examinations

When television courses are offered primarily for independent study off-campus students, one service that has

been found to be quite useful as a study or review session scheduled a day or two before examination. These sessions can be set up on-campus or at off-campus centers, they can be organized for large or small groups, and scheduled as either voluntary or required. The purpose of such study sessions is to allow students to ask questions and to profit from the questions of other students about the course and the required examinations. You may want to offer more than one opportunity for group review to accommodate students' diverse schedules.

If regular discussion groups are available to students, audio tapes of these meetings could be made available to students in a media center or over radio as another form of review.

Study Aids

Lacking the reinforcement of meeting with the teacher in a scheduled classroom each week, off-campus students can easily fall behind in their reading or studying. Experience has shown that many forms of communication between the college and the student can help prevent this problem by sparking continued concern and effort. Even an occasional postcard from the course faculty-facilitator can remind the student that the institution is interested in students' success with the course. A card can also encourage them to seek help if they are having difficulty with any course material.

Often students prefer to have some kind of nongraded quiz or other form of feedback each week in order to measure personal progress in the course and know generally what to expect from examinations. This is especially valuable for students whose study habits have not been adequate or consistent. These quizzes can be composed of items from the bank of test questions and mailed to students, who can then self-grade them or return them to the colleges. Schools with computer facilities can easily grade the items and send out a postcard with the correct answers within a few days. Colleges without such facilities or staff for correcting weekly quizzes for a large number of students should consider other options including sending the student a series of quizzes with the answers in a separate envelope to be opened after taking the quiz. Since the purpose is to encourage learning rather than test, the lack of regular examination conditions is not important.

Whatever the form, the more contact with students, the greater the likelihood of their persistence and success in the course. One college discovered that a sample of students who received a weekly postcard survey asking for their opinion of the television programs performed better than students not surveyed on the weekly basis.

A concluding note. In the beginning of the course planning process, you should work with your instructor in deciding what activities and services are to be provided since these decisions have implications for the course budget, as well as for the nature of the faculty assignment.

SAMPLE TEST BANK: UNIT 8

Multiple choice

1. To psychologists, the most important difference between chimpanzees and humans in learning language would probably be that chimpanzees
   a. Learn to use tokens rather than words.
   b. Respond to rewards more than humans.
   c. Have not progressed beyond the level of a two-year-old human being in spite of active training.
   d. Are able to speak as well as a normal four-year-old but learn only with training.
   e. Cannot use tokens to represent objects which are not present.

2. All over the world language development:
   a. Follows the sequence described in the text and Program 7.
   b. Is invariant with respect to sequence, sound, and syllabification.
   c. Occurs but the sequence will vary according to culture.
   d. Only takes place when there is conscious training by adults.

3. Prelinguistic speech
   a. Is not necessary for further language development.
   b. Is important in subsequent language development.
   c. Is peculiar to certain aboriginal South Pacific tribal peoples and is the genesis of the Whorfian hypothesis.
   d. Occurs only in children who interact with their parents.
   e. Does not occur at all in deaf children.

4. At about nine or ten months of age Jimmy seemed consciously to imitate the sounds of his delighted parents. Psychologists call this stage of language development:
   a. Babbling.
   b. Using holistic phrases.
   c. Cooing.
   d. Echolalia.
   e. None of the above.

5. A mistake children commonly make which may indicate that the ability to use grammar is innate is
   a. Repetition.

b Their use of regular past tense forms for irregular verbs—"goed" instead of "went."
c. Their increasingly perfect imitation of their parents.
d. All of the above

6. Bees' dances to indicate the location of honey is not considered language because:
a It is invariant, there is no "conversation," and it does not represent an abstract situation.
b. It is composed solely of symbols.
c It takes several bees to perform the "dance."
d. The bees are not communicating anything.
e. Bees cannot talk.

7. Most psychologists agree on observable sequences of speech in language development. They disagree on:
a. The order in which they occur.
b The meaning the child attaches to its first words
c. Why these sequences occur.
d Why children do not proceed from cooing to babbling at the same time.
e. All of the above.

8. In an operant study of infant babbling, the infants babbled more when they were exposed to:
a. Either form of contingent reinforcement.
b. Contingent nonsocial reinforcement.
c. Contingent social reinforcement.
d. Noncontingent nonsocial reinforcement.
e. Noncontingent social reinforcement.

9. In the study of children's language development, telegraphic speech refers to:
a. The child's use of one word sentences to express a complete thought
b. The child's use of sentences which contain only words for meaning
c. The child's utterance of a string of sounds which sound like sentences but are noncommunicative
d The child's use of grammatically correct verbal utterances
e. None of the above

10. The interactionist theory of language acquisition maintains that children learn language:
a. By imitating a model.
b. Because language is a social necessity.
c. Because they possess an innate biological predisposition.
d. Through reinforcement.

11. A child's first words and sentences will probably:
a. Deal with abstract concepts but on a simplistic level.
b. Refer to the concrete and immediate world about him.
c Begin with the consonants b, d, and p.
d. Be an indicator of his future language development.

12. When Zia calls an almond "almond" and walnuts and pecans "nuts," it is most probably because she:
a. Doesn't know the word for pecans.
b. Likes almonds better than walnuts or pecans.
c. Has never seen a walnut or pecan.
d. Is conceptually unable to use class-inclusive words correctly, and therefore under extends their use.
e Is unable to distinguish among the three types of nuts and over extends word usage.

Short answer questions

1. Is the ability to use language unique to human beings? Why.

2 Discuss the controversy over whether language is innate or acquired.

3. What are the stages of language development in infancy?

4. Describe two theories of language development.

5. What is LAD and how does it relate to the controversy as to whether language is innate or acquired?

APPENDIX D:
TELECOURSE ENROLLMENTS

Information concerning national enrollments for telecourses is almost impossible to collect. Telecourses are "sold" to colleges, which offer them, in turn, to their own students. There have been requests for enrollment reports in the past, but not every institution has complied with them. There have also been per head student enrollment fees, payable to the telecourse producer, but these have been introduced only recently.

Book sales provide the nearest approximation to total enrollments we have been able to find. These are imperfect because they do not reflect the actual number of students: one study at Coastline Community College found that, on the course under review, only 60 percent of the enrolled students bought book packages, most respondents guess that there are "trade sales" to the general, nonenrolled public for major television series.

Several telecourse producers have provided the SCEPAL project with book sales from their records. These are listed below in order to indicate the magnitude of use for various telecourses. They are not comparable, however, as they cover different time periods and broadcast arrangements in each case. Where dates or numbers of broadcasts are available, we have included them.

BOOK SALES (as of October 1, 1979; some figures are estimates)

Wrap-Around Telecourses

Age of Uncertainty (one national broadcast for the course, using a repeat of the initial national feed, Fall 1977)	6,487
Adams Chronicles (1976–March 1979)	7,918
Anyone for Tennyson (two national broadcasts)	650
Ascent of Man (two national broadcasts, 1975; local airings since then)	43,893
Classic Theatre The Humanities in Drama (two national broadcasts, 1975, local airings since then)	14,499
Connections (one national broadcast, Fall 1979)	9,000
Long Search (two national broadcasts; local airings)	12,124
Perspectives on Effective Parenting (one national broadcast, Fall 1977)	3,207
Roots	14,803
Shakespeare Plays (one national broadcast, Spring 1979)	6,000

Courses for Television

Producer: Coast Community College District[1]

Applied Sketching Techniques (since Spring 1978)	627
As Man Behaves (since Fall 1974)	20,920
Contemporary California Issues (since Spring 1976)	3,227
Designing Home Interiors (since Fall 1978)	2,995
Dimensions in Culture (since Fall 1974)	13,734
Freehand Sketching (since Spring 1974)	4,596
The Growing Years (since Fall 1977)	13,441
The Home Gardener (since Spring 1976)	8,998
Humanities Through the Arts (since Fall 1978)	6,616

1 Coastline sent these figures with the following note: "These are enrollment figures, not book sales. Furthermore, they may not be complete enrollment figures, they are based on Coast's billing records plus our local enrollment figures. Since we occasionally trade a course or sell it for a flat fee, we have not, until recently, collected enrollment figures from all institutions that may be using the course. Another limitation is that there is no way of knowing whether our data represents mid-term or completion figures, or both. Last, these figures represent full semester use of the course. Use of a single program or clusters is not indicated.

Introducing Biology (since Fall 1978)	1,012
Project Universe (since Fall 1978)	3,837
Yoga (since Spring 1975)	2,746
Producer: Dallas County Community College District	
(all listings are from enrollments through Fall, 1978 semester)	
American Government I	21,238
The American Story	3,401
Communicating Through Literature	3,896
Earth, Sea, and Sky	4,612
In Our Own Image	3,085
It's Everybody's Business	14,888
Writing for a Reason	10,364
Producer: University of Mid-America	
(unless otherwise noted, these sales figures are approximate only, and collected since October 1977)	
Going Metric	609
Great Plains Experience (since Spring 1978)	1,247
Japan: The Changing Tradition (since Fall 1978)	297
Japan: The Living Tradition	1,217
Pests, Pesticides, and Safety	2,562
World Food Problems	886
Producer: Miami-Dade Community College District	
Man and Environment (since 1973, estimated for combined Vol. I and Vol. II sales)	100,000

APPENDIX E:
STUDENT ORIENTATION LETTERS

COASTLINE COMMUNITY COLLEGE

Bernard J. Luskin, President

10231 SLATER AVE FOUNTAIN VALLEY CALIFORNIA 92708

(714) 963-0811

ORIENTATION LETTER

September 1977
Letter Number 1

Student of

To: ____________________, ____________________, ____________________
(Course Title) (Course Number) (Ticket Number)

From: ____________________ and ____________________
(Course Learning Manager) (Course Learning Manager)

Welcome to televised ________________________________. This letter provides you with the course requirements and indicates what you need to do to successfully complete the course. It contains important information, so please keep it handy for reference throughout the course.

COURSE OBJECTIVES (sample from Moral Choices in Contemporary Society special media course)

V A R I A B L E

You will develop the ability to discern the established order of morality within our society and to adjust your life within this foundation. At the completion of the course, you will:

1. Understand the complexity and interrelations and nature of moral issues.
2. Understand the factors affecting and general sequence of events leading to the development of these moral issues, and identify future trends.
3. Be able to critically evaluate public statements about these issues by the media, government spokesmen, and leaders of partisan groups in terms of accuracy, objectivity, and usefulness.
4. Be able to better evaluate present and proposed efforts to alleviate or solve these issues, identifying factors in the success or failure of the efforts.
5. Understand the role of and need for individual input at all levels of community efforts at problem-solving.

COURSE MATERIALS

Materials you need to purchase:

Textbook: ____________________
Study guide/syllabus: ____________________
One IBM Electrographic pencil.

All course materials can be purchased at the Coastline Community College Bookstore.

Coastline Community College Bookstore
18806 Brookhurst Street
Fountain Valley 92708
Phone (714) 964-1588
Located in the Fountain Plaza Shopping Center (between Garfield and Ellis)

HOURS: Monday through Friday - 11:00 a.m. - 7:00 p.m.

You should purchase these materials as soon as possible, as these materials are essential to your completion of the course.

COURSE REQUIREMENTS

1. Work in the course study guide/syllabus, _____. At the beginning of the study guide are the directions on how to use this study aid. These directions will help you use the study guide most effectively. At the end of each unit there are study questions to be answered. By answering these questions and checking your answers against those provided in the answer key, you will know how well you are mastering the course material.

2. Read the textbook, as this is one of the sources of the course content you are to learn and on which you will be tested.

3. View the televised lessons/read weekly newspaper articles. This material has been designed to illustrate and to enrich the concepts which you are reading about in the textbook. You will learn the most from the telelessons by using the telelesson viewing guides provided in the study guide and by reading the assigned chapters before viewing the telelessons. A listing of the playout dates and times for all telelessons is attached to this letter.

   If you do miss a telelesson, videotapes of every telelesson can be viewed by visiting the Media Centers at Golden West College, Orange Coast College, or Huntington Beach Public Library (eventually, at other libraries and Coastline Community College learning centers throughout the community).

   Please note that only two tapes may be requested at one sitting, and tapes will not be checked out one-half hour prior to closing time. Tapes are delivered to the Media Center locations approximately 10 days after airing on KOCE-TV, Channel 50.

VARIABLE

MEDIA CENTER LOCATIONS AND HOURS

Golden West College Library (located directly across from College Bookstore and Student Center; parking off Gothard Street)
15744 Golden West Street
Huntington Beach 92647 (714) 892-7711, Ext. 655/6 or 892-0058
HOURS: Monday through Thursday - 7:30 a.m. - 10:00 p.m.
Friday - 7:30 a.m. - 5:00 p.m.
Saturday - 11:00 p.m. - 4:00 p.m.

MEDIA CENTER LOCATIONS AND HOURS

Orange Coast College Library (located next to gym off Fairview)
Fourth Floor
2701 Fairview Road
Costa Mesa 92626 (714) 556-5885
HOURS: Monday through Friday - 7:30 a.m. - 10:00 p.m.
Saturday and Sunday - 10:00 a.m. - 5:00 p.m.

Huntington Beach Public Library
7111 Talbert
Huntington Beach 92647 (714) 536-5484
HOURS: Monday - 1:00 p.m. - 9:00 p.m.
Tuesday through Thursday - 9:00 a.m. - 9:00 p.m.
Friday and Saturday - 9:00 a.m. - 5:00 p.m.

SELF-QUIZZES

Complete and mail in the self-quizzes. The self-quizzes are provided so that you may receive timely feedback on how well you are mastering th course content. Each self-quiz which you complete and mail in will be processed by computer and feedback will be mailed to you within a week. The feedback for each self-quiz will tell you which quiz questions you missed and what the correct answer should have been. Also, for each quiz question you miss, you will receive a prescription of what to study in the text or telelessons to master the material covered by the missed quiz question. The feedback you receive will help you prepare for the mid-term and final. The self-quiz questions, which are based on the course learning objectives, are similar to the questions which will appear on the midterm and final. The purpose of the quizzes is to help you prepare for the exams. (C.I.S. Course Learning Manager: Please state credit requirements, if any, for self-quizzes.)

Directions for completing the self-quizzes are as follows: Mark the best choice for each question on the enclosed IBM card, which is identified by quiz number, your name and I.D. number and the ticket number. You may choose only one answer for each question and please select an answer for each question. If you are taking more than one C.I.S. course, please be sure you use the correct card. The cards are not interchangeable - not for quizzes nor for ticket numbers.

To mark your answer, use an electrographic pencil. Please do not use ink. Make vertical marks, neatly, within the lines, heavy and clean. If you erase a mark to make another choice, be sure you cleanly erase the old mark. Ignore the Form Number option at the top of the card.

Please keep your marked quizzes and results for your personal tool. If you have questions or concerns about using these self-quiz feedback marerials, please call.

COURSE EXAMS

In order to successfully complete this course, you must take the course midterm and final exams. Each exam will consist of _____ multiple choice questions.

The exam questions will be similar to the self-quiz questions (if applicable) and to the study questions in the study guide (if applicable). All exam questions will be based on the chapter and telelesson learning objectives. The midterm will cover units _____ and telelessons _____. The final will cover units _____ and telelessons _____. Please bring your IBM electrostatic pencil to the midterm and final exams (or, please use an IBM electrostatic pencil for marking all quizzes and examination cards).

VARIABLE

The midterm will be given at the following times and places. You may attend either session.

VARIABLE

Date:	Date:
Time:	Time:
Place:	Place:

The final exam, covering the last ____ units, will be given at the following times and places. You may attend either session.

VARIABLE

Date:	Date:
Time:	Time:
Place:	Place.

You are required to take the course examinations at the time and place indicated. Makeups may be made if you contact one of the learning managers at least one week prior to the exams. Your score on the midterm will be mailed to you approximately two weeks following the exam.

VARIABLE

LEARNING AIDS AND RESOURCES

The following activities and services are available to you as a means of assisting you in maximizing your learning and in successfully completing the course. Studies show that students who utilize these resources have the greatest success. We encourage you to make full use of the resources listed below.

1. Learning Manager Hours

   If you need information or assistance with the course content, please contact (me/either of us) by telephone. (I/We) will be available to receive calls or to meet with you during the following office hours:

   Learning Manager _____, Office Phone Number _____

   Hours:

   Learning Manager _____, Office Phone Number _____

   Hours:

   If you cannot call or come in during these office hours, call and give the telephone answering machine your name and phone number and indicate when it is most convenient for your call to be returned.

NOTE: Questions not pertaining to course content may be answered by the C.I.S. Course Services Office at (714) 963-0811, Ext. 231/233 during the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.

2. Review Sessions

You may attend the review/discussion sessions. At these sessions, we will discuss and review the course assignments, and prepare you for the midterm and final examinations. You are not required to attend, but (I/we) encourage you to do so as they will be helpful to you. Following are the dates and times and places of the review sessions:

VARIABLE

_____ Student

Midterm Review Session	Final Review Session
Date:	Date:
Time:	Time:
Place:	Place:

3. Phone-In Audio Reviews

Phone in and hear weekly reviews of each unit of instruction. (I/We) have prepared an audio review highlighting the important ideas and content of each week's unit of instruction. By phoning the OCC Media Center at 556-5600 or going to the GWC Media Center, you may request the audio review tapes (by unit number) you wish to hear. In this way, you will be able to review the important ideas of the unit on which you are working.

VARIABLE

GRADING

In this course you have the option of receiving a letter grade or credit/no credit. Under the second option, credit is granted if you earn a letter grade of A, B, or C, and no credit is granted if you earn less than a "C." You will be asked your decision as to your receiving a letter grade or the credit/no credit option at the time of the final. You should note, however, that credit (CR) is not the equivalent of any letter grade. A CR protects the grade point average (GPA) for those students desiring general education experiences outside their major, and should be avoided as a substitute for a letter grade in a major field of study. Students are cautioned that some four-year institutions place a limit on the number of units acceptable with a CR designation rather than a letter grade.

Coastline Community College does not assign a grade of D or F, and the Veterans Administration presently does not accept a grade of No Credit.

WITHDRAWALS FROM COURSES

Upon entering Coastline Community College, the student assumes the responsibility of completing each course in which he or she is registered. Withdrawal is not an automatic process. The student is responsible for officially withdrawing by notifying the Admissions and Records Office. If you are unable to complete the course, you should then officially withdraw in order to get a grade

of "W" on your college transcript. You may do this by telephoning the Coastline Community College Admissions and Records Office at 963-0824.

Veterans who drop below the required number of units will lose partial subsistence.

We hope your experience with _____ will be a rewarding and meaningful one. This course is designed to help insure your success. If you will do the assignments and fully utilize the learning resources, you can successfully complete the course and earn _____ college units. If you need help or have questions, please contact (me/us).

Sincerely,

(name)
C.I.S. Course Co-Manager

(name)
C.I.S. Course Co-Manager

Enclosures: C.I.S. Course Broadcast Schedule
Quiz, quiz cards, return envelopes (if applicable)
Address change card

University Extension, Q 014
University of California, San Diego
La Jolla, CA 92093

EXTENSION

DATE: January 10, 1979

TO: Students Enrolled or Interested in Enrolling in THE SHAKESPEARE PLAYS

FROM: G. S. Munshi
Course Instructor

Welcome to THE SHAKESPEARE PLAYS! I hope you will enjoy the rich experience ahead of us.

The basic aim of this self-study course is to enable you to experience a play with understanding and appreciation. The designers of THE SHAKESPEARE PLAYS felt that the televised productions of the works we will be reading and viewing in this course offered students a unique opportunity, and I agree. There are very few literature courses where the emphasis can be on the acted play, rather than criticism of the written work.

The course has several components. The central one is the BBC productions of six Shakespeare plays which will be broadcast this spring. In San Diego KPBS-TV, Channel 15 will air them on the following dates at 8:00 p.m.; there will be a repeat airing at 1:00 p.m. the following Sundays.

February 14	Julius Caesar
February 28	As You Like It
March 14	Romeo and Juliet
March 28	Richard II
April 11	Measure for Measure
April 25	Henry VIII

If you will be viewing them on Channel 28 or another PBS station, the times will probably be the same, but I urge all of you to check local listings because these schedules are always subject to last-minute changes.

Prior to viewing each play, it is expected that you read its text and accompanying assignments. These are available in a package entitled The Shakespeare Plays which you can buy at your local community college bookstore for about $15.00. I suggest you telephone the bookstore first to confirm the availability

of the package since all community college bookstores in the San Diego area may not have them in stock.

The package contains six books: the Pelican edition of each play and a study guide which was developed here at UCSD Extension. The study guide includes learning objectives, a sequence of assignments, and an essay for each play. These were developed by leading scholars and teachers - and we emphasize "teachers" - from across the United States, especially for this course. As you will note, our second class meeting coincides with the air date for "Romeo and Juliet." On that day we will make provision for screening the play in class and discussing it there.

By the end of this course, in addition to enhancing your enjoyment of the plays, you should be able to:

1. Cite examples of the ways in which Shakespeare's text is a script that gives clues for performance.

2. Identify major characters, discuss the problems they face, and show how they deal with them.

3. Describe the various groups of characters and discuss their interaction.

4. Identify the main locales of action and explain their significance.

5. Trace the sequence of events and suggest why the scenes are ordered as they are.

6. Identify differences in the ways the various characters speak, and show how language - metaphor, diction, verse and prose forms, jokes, wordplay, etc. - contribute to the interest and meaning of the play.

7. Explore the relationship between the printed text and the televised performances.

8. Discuss the various possible interpretations of scenes, characters, and entire themes which are supported by the evidence of the text.

9. Relate the major themes of the various plays to human experience.

Our first meeting will be in Room 2154, Humanities and Science Building, Muir Campus, UCSD on January 17. At that time, I will explain course requirements. I am looking forward to seeing you there.

APPENDIX F:
RESPONSE SYSTEM WITH VARIABLE PRESCRIPTIONS—RSVP

From Kelly, J Terence, and Kamala Anandam *RSVP, A Faculty-Computer Partnership*, Supplement Number 1 to RSVP-Instructional Capabilities. Miami, FL 33176 Miami-Dade Community College (Auxiliary Services), n d , pp. 7–12

The *R*esponse *S*ystem with *V*ariable *P*rescriptions, which is popularly known as RSVP, is an example of faculty-computer partnership directed toward individualizing instruction while managing up to 5,000 students in any single course, whether the course is presented on campus, as independent study, or in a remote setting.

Partly prompted by the increasing concern of faculty and administrators of Miami-Dade Community College to meet the needs of individual students, and partly instigated by the growing frustration of students who feel cheated of individual attention that is due them, the RSVP system was initiated at Miami-Dade Community College in 1972.

Traditional classroom instructional methods can hardly face the challenge. This is not to say that lack of quality is inherent to classroom interaction. On the other hand, constraints due to space, time, and personnel cause a continuous drain on the instructors' and administrators' dedication and commitment to provide quality instruction RSVP is one means of answering a question that constantly plagues educators and is so succinctly expressed by W C. Brown, National Research Council, Canada: "How can every student be given the opportunity of salutary instructional dialogue characterized by individual attention?" (W. C. Brown, p 255)

The conceptualization of the RSVP system owes its origin to another system called *T*eaching *I*nformation *P*rocessing *S*ystem --TIPS, whose author is Professor Allen C Kelley of Duke University Except for the variation in core-space requirement, program call routines, and a few other unique features, both are basically Computer-Based Instructional Management (CBIM) systems which succeeded the appearance of Computer Assisted Instructional (CAI) systems (Baker, 1971).

Emergence of CAI systems was an outcome of a recurring theme in the American educational arena in individualization of instruction. While the student computer interaction for learning is truly innovative, and many creative programs have been written for CAI systems, the originators grossly underestimated the level of computer-related equipment and computer time necessary for wide-scale implementation of the CAI systems. It is not surprising that the CBIM systems, of which RSVP is one, began to emerge with a sole purpose of providing the faculty a means of managing instructional designs planned to give individual attention. The term "planned" is not without significance. Anytime an instructor resorts to a computer for management, there is a great deal of planning involved. It is, indeed, a way of thinking and a way of life.

FUNCTIONS OF RSVP

Individualization of instruction for up to 5,000 students in a course is accomplished by RSVP by virtue of its potential for three functions:

I. *It can maintain a record on each student in a course.*
   a. Name, address, telephone number, etc.
   b. Personal attributes such as sex, campus, grade point average, interests, etc.
   c Students' responses to items in a survey or an exam.
   d. The number of surveys and other assignments that are turned in by students thus providing a history on students' participation and performance in course activities.
   e. The number and kinds of responses received by students.

This component of the RSVP's functions resembles the rollbook maintained by an instructor.

II. *It can print reports to students.*
   a Scores student responses to surveys and exams.
   b Diagnoses individual student problems based on survey or exam performance
   c. Prescribes appropriate, personalized assignments.
   d. Prods the non-responding student for being negligent about the assignments

Thus, each student is looked upon as an individual person, and is responded to either for performance or absence of it . .

III *It can provide the instructor with reports*
   a Item analysis and test statistics of surveys and exams.

b Class-roster with address, telephone number, and any number of informational details, such as sex, campus, age, surveys turned in, score on surveys (if desired), exam scores, whether instructor responses were sent, etc Frequency of updates and information to appear on this roster are entirely determined by the instructor.

By carrying out the functions described above, RSVP offers the following services for the student, the instructor, and the administrator respectively.

For the student, RSVP can 1) provide him with frequent and immediate feedback regarding his progress through tests that are no longer a device to coerce or grade, but are better labeled "surveys" of student achievement and which serve as valuable learning aids. 2) make a diagnosis based on his personal performance and attributes The student may be assigned special material to restudy, additional problems to solve, a tutorial session or public hearing to attend, an additional film to view, etc

The types of messages possible thus need not be restricted to analysis of survey results but can serve as a means of communicating with the student. And because the learner's needs may differ from those of all others, he may be the *only* one with the individual assignment given him This means the student has explicit personalized direction so that he can adjust his efforts and better his chances for success in the attainment of the course objectives

For the instructor, RSVP means far less time expended in personalizing efforts that otherwise may be too sporadic to be reliable Instead, computer aided instructional management can provide the instructor with extensive and frequent insight to student progress and to one's own instructional effectiveness.

Survey results may indicate the need for a review lecture of the presentation or supplementary material Teaching strategies can be revised, adjusted, or expanded to suit an individual student or an entire class. The system thus provides a continuous measure of self-evaluation for the instructor and the effectiveness of the program

Above all, RSVP means instructor satisfaction that each student is being provided with challenging, individually appropriate learning tasks with the behind-the-scenes assistance of the computer The computer is, indeed, only a machine Yet it can become the instrument for achieving a far more detailed, variable and individualized prescription for student accomplishment than is attainable amid the time pressures and distractions of many a classroom

For the administrator RSVP provides a valuable managerial tool by which both instruction and student achievement may be evaluated and improved Quizzes and tests can be replaced or complemented by surveys ... nonthreatening and serving beyond the traditional role of repeating verbatim what has been learned. Instead, each survey item is designed to measure the *extent* to which a specific concept has been assimilated, on an item by item basis, and to make specific, individualized prescriptions for improvement.

Administration thus obtains a solid basis for upgrading instruction—collectively and singly. Courses or instructional activities have to be tightly constructed, and clearly defined from start to finish This implies a sound academic rationale has been built into every aspect of course objectives and evaluation There is probably far more authenticity at upper levels of college management through this approach than any other.

The advantages are mutual to faculty and administration. Student achievement, in the final analysis, determines the success of any institution of higher learning. Lack of it can be one of the greatest sources of public disillusionment

Student achievement is in direct proportion to the extent that instruction becomes personal and relevant, adapted to the student's learning style and needs. *R*esponse *S*ystem with *V*ariable *P*rescription, RSVP, makes this possible!

PROGRAMS IN RSVP

The RSVP system consists of eight programs with different job assignments to help the system execute the three functions specified earlier.

The RSVP system and its programs as they are described hitherto are just that - descriptions of potential within the system for various functions. The potential awaits activation by the HUMAN MIND the INSTRUCTOR.

Activation includes 1) selecting instructionally useful "attribute" and "performance" information, 2) instructing the RSVP system to store the selected pieces of information under specified field codes (field code is RSVP jargon which means an allocated space within the system), 3) combining the pieces of stored information in the form of decision rules (another jargon), 4) feeding the varied prescriptions into the computer so as to allow the RSVP system to print differential responses to students Thus, each student is looked upon as an individual within the RSVP system of instruction

Function	RSVP Program	Job Assignment
I. Maintain records	RSVP 01	To describe parameters for course—number of students, number of tests, number of questions, number of attributes, etc
	RSVP 02	To describe what information related to course, answers to tests, student attributes etc., to expect and where to store them.
	RSVP 03	To add, change, or delete student numbers.
	RSVP 04	To add, change, or delete student attributes.
II. Print student reports	RSVP 05	To score student test or surveys.
	RSVP 06	To write student reports.
III. Print instructor reports	RSVP 07	To extract data on course descriptions, student attribute definitions, test statistics.
	RSVP 08	To print class rosters with specified pieces of information.

APPENDIX G:
FACTORS THAT HELP OR HINDER STATION-COLLEGE CONSORTIA SERVING ADULT LEARNERS

BACKGROUND INFORMATION

This study was sponsored by the Corporation for Public Broadcasting. A series of telephone interviews were conducted with station and college personnel at various sites. These interviews had two purposes: to gather background information on the various relationships between consortia of stations and colleges and to develop a tentative list of factors that facilitate or hinder the successful serving of adult learners through such station-college relationships. The final products, contained in this report, are lists of tentative conclusions of helping and hindering factors and a method for conducting on-site interviews to verify these tentative conclusions.

In a related project, sponsored by the Fund for the Improvement of Post-secondary Education through a grant to the American Association of Community and Junior Colleges, these conclusions will be verified and expanded through the development of six case studies. The results of both projects should be useful as a set of techniques for planning and operating a successful consortium of higher education institutions and broadcast stations.

Great effort was made by Peter Dirr of the Corporation for Public Broadcasting and by Marilyn Kressel of the American Association for Community and Junior College projects to insure that duplication be avoided and that the projects share information and build upon each other's efforts as much as possible. Given the different timelines of the two projects, the two-phase research effort described above seemed the best way to achieve that goal.

My sincere thanks to all those who contributed their time, frankness, and insights to the development of the list of factors that facilitate or hinder success.

METHODOLOGY—CONSORTIUM STUDY

First Phase

During the four months available for data gathering (December, 1978 to March, 1979), telephone interviews were conducted with individuals at each site (in-person interviews were held when possible) which focused on this basic question: *What are the essential elements of a successful consortium of colleges and broadcast stations attempting to serve the adult learner?* The question was asked in a variety of ways. If you could begin again, what things would you change about the operation of your consortium? What things would you keep? What things are responsible for your greatest problems? What things are responsible for your greatest successes? What is the main advice you would offer to those about to create a consortium?

The individuals interviewed were mainly consortium coordinators, college executives, and station or program managers (see below). At a few sites it was also possible to meet or talk with individual instructors, students, and state-level policy makers. Everyone interviewed was open and helpful. Each was assured that statements would not be directly attributed to particular individuals, but rather, a tentative list of factors that help or hinder success would be developed.

The consortia represented included a variety of types, which are similar in some aspects and different in others. Maryland and Kentucky both have state networks, but Maryland's College of the Air has been in operation since 1970, while Kentucky's Higher Education Telecommunications Consortium is not yet a year old. The Southern California Consortium for Community College Television and Massachusetts' Community College of the Air are both consortia of community colleges, but the California consortium is in a state that has emphasized public education through community colleges, whereas Massachusetts is a state largely dominated by private higher education. Some consortia represented serve a particular target group. The To Educate the People Consortium founded by Wayne State University makes higher education available to blue-collar, working adults, and the Association for Media-Based Continuing Education for Engineers provides continuing education for engineers in industries. Representatives from metropolitan, regional, and state consortia were included in those interviewed.

The factors were developed by an iterative process of reading, interviewing, tryout, and revision. The attempt was made to search for and group elements into seven to ten large categories (an amount information-processing theory indicates can be considered simultaneously without undue confusion), and then to operationalize these general principles by listing under them the specific subfactors that make them up. Once the initial list was compiled, I and colleagues went over it to check it for completeness and clarity. The list was subsequently reduced or expanded based on the phone interviews. It was field-tested at a Boston site visit,

through interviews held with the consortium coordinator, the community college president, three community college instructors, two public television station programmers, and the state director of community colleges. Based on their suggestions, the interview questionnaire was revised into its final form (see below). This interview questionnaire will be used in the development of six case studies of consortia for the American Association of Community and Junior Colleges during the Spring and Summer of 1979.

Second Phase

The first phase of this study involved the development of a survey instrument through open-ended questions. Interviewees were encouraged to generate factors that predict success or failure, based on their own experience. Their responses were rich and varied, but difficult to quantify. It is possible that their responses to the open-ended questions were reactions to some crisis of the day, rather than a careful consideration of alternatives.

In the AACJC-sponsored research (second phase), interviewees will be given a completely scheduled instrument. To accomplish this, I have chosen a Likert type of scale, which allows respondents to rate a series of statements about facilitating factors according to their importance and according to the degree to which the statement fits their own situation. By asking respondents to rank specific statements on a scale from 1 to 5, greater reliability of response is insured (in other words, it is more likely that interviewees would respond the same way if asked to fill out the instrument again).

Respondents will be given instructions on the instrument. Several kinds of people will be asked to respond: state level administrators, college representatives, station representatives, consortium coordinators, and students.

It is expected that the most important factors will differ for different groups. Each will be asked to rate the importance of these factors, to estimate the degree to which they are present in their own situation, and to give examples of ways they overcame any hindrances.

A series of assumptions are made about this methodology:

1. that it is an acceptably reliable instrument, with a correlation of 0.7 or 0.8 between successive givings (in other words, that if people were asked to fill it out twice, they would answer the same way 70 to 80 percent of the time).

2. that the factors listed in the instrument are fairly representative of the beliefs and experiences of those who currently manage or participate in major college-station consortia in the United States. If the factors listed *are* representative, and if the respondents are correct in their assessment of the relative importance of these factors and of ways to overcome problems, these items can become techniques for planning and operating successful station-college consortia.

The limitations of the methodology must be mentioned as well. The list of factors was generated from the beliefs and experiences of those involved in day-to-day station-college consortia. No attempt is made, in the present study or in the planned follow-up study, to check the *validity* of the beliefs of those interviewed. In other words, we can check to see if others *agree* that these are the significant factors, but we cannot check to see if these *are* in fact the causes of successful consortia.

To some extent, this is the only kind of study possible, for it would take years to gather the data necessary to validate these beliefs and experiences. But the weakness of such an approach must be recognized. People often misunderstand those active factors in day-to-day practice that influence outcomes. At worst, conducting research by asking them for their beliefs and experiences runs the same risks as if we tried to determine the geography of the earth by polling thirteenth-century Spaniards in shipping guilds—their experience might tell them that the earth is flat, they might all believe that the earth is flat, and if asked, they might all agree that the earth is flat. But that doesn't make the earth flat.

On the other hand, most innovations in education have been based, not on basic research, but on the insightful reflection upon experience of outstanding practitioners. In the absence of research that attempts to manipulate factors over time, the best we can do is to try to gather a reliable and valid list of factors believed by practitioners to influence success, and assume that this is probably a fairly accurate picture of the situation.

CONSORTIA AND INDIVIDUALS INTERVIEWED

Association for Media-Based Continuing Education for Engineers
Engineering Science and Mechanics Building
Georgia Institute of Technology
Atlanta, GA 30332
404-894-3362

Membership Nineteen Universities
Area Covered Coast to coast, north to south
Governance Executive Committee and Industrial Advisory Council
How Long in Operation Informal meetings since 1974, incorporated 1976, organizational grant from National Science Foundation, 1978

Major Goals and Activities: To increase the national effectiveness of continuing education for engineers, through a centralized system for nationwide satellite video broadcasting of classroom instruction from major American universities to employed engineers at industrial plants and research laboratories throughout the country.

Courses Offered Over 300 courses per year.

Persons Interviewed:

Dr. Paul Hadley
Vice President of Academic Affairs
Bovard Administration Building
University of Southern California
Los Angeles, CA 90007
213-741-2231

Dr. John T. Fitch
Executive Director
AMCEE
Georgia Institute of Technology
Atlanta, GA 30332
404-894-3362

College of the Air
Maryland Center for Public Broadcasting
Owings Mills, MD 21117
301-346-5600

Membership Maryland Center for Public Broadcasting and 18 colleges around the state, through the four stations of the state network.

Area Covered Most of Maryland.

Governance Directors of continuing education meet twice yearly to review courses available for that semester. Approval is by department heads at each campus

How Long in Operation 1970

Major Goals and Activities: To provide learning opportunities to nontraditional students through televised instruction and to offer necessary support services to colleges

Courses Offered Fall 1978 *The Adams Chronicles, The American Story, The Long Search, Writing for a Reason, Dimensions in Literature II,* plus eight Open University courses through Maryland University College Spring, 1979: *It's Everybody's Business, The Growing Years, Europe the Mighty Continent, Of Earth and Man, Introduction to Math, From Socrates to Sartre*

Persons Interviewed:

Mr Richard Smith
Director of Development Projects
Maryland Center for Public Broadcasting
Owings Mills, MD 21117
301-356-5600

Ms Fran Petty, Assistant
College of the Air
Maryland Center for Public Broadcasting
301-345-5600

Community College of the Air
Bunker Hill Community College
Rutherford Avenue
Charlestown, MA 02129
617-241-8600

Membership. Twelve Massachusetts community colleges formed to offer two telecourses each semester over open-circuit broadcast on WGBH in Boston and WGBY in Springfield.

Area Covered: State of Massachusetts

Governance: Informal collection of continuing education deans who meet twice yearly to select courses.

How Long in Operation: September, 1976

Major Goals and Activities: To expand the college's central mission of providing community service, and positive public relations for the system as a whole.

Courses Offered: Fall, 1978: *The Growing Years, The American Story, The Long Search, It's Everybody's Business.* Spring, 1979: *The Growing Years, The American Story, The Shakespeare Plays.*

Persons Interviewed:

Mr. R. Brent Bonah
Coordinator of Television Instruction
State Coordinator for Community College of the Air
Bunker Hill Community College
617-241-8600

Dr. Harold Shiveley
President
Bunker Hill Community College
617-241-8600

Mr. Mark Stevens
Director of Broadcasting
WGBH-Boston
125 Western Avenue
Boston, Massachusetts
617-492-2777

Mr. Douglas Smith
Radio and Television for Learning
WGBH-Boston
617-492-2777

Dr Jules Pagano
Massachusetts Coordinating Board for Community Colleges
470 Atlantic Avenue
Boston, Massachusetts
617-727-1260

Florida Community College Television and Radio Consortium
Coordinator, Tom Hobbes
Seminole Community College
Sanford, FL
305-323-1450

Membership. Twenty-eight community colleges, each assigned to one of six regions within the state. Regions determined according to the broadcast range of a particular education television station.

Area Covered: Entire state

Governance: Regional coordinators meet on a statewide basis. Community college representatives of each region meet several times yearly to preview courses.

How Long in Operation: 1974

Major Goals and Activities: To use radio and television as alternatives for instruction for the adult learner. Regular activities include preview of available materials, recommendations for utilization, clarification of the roles of the regional coordinators and institutional coordinators, development of logistical operations, possible production of materials, operation of a clearinghouse for materials, and long-range planning.

Courses Offered: Depends on region; for example, Region IV in 1978-79 offered *Humanities, Environmental Horticulture, Freshman English Composition, Art in America, Introduction to Anthropology, Growing Years, General Psychology, Man and Environment I and II, Earth Science, Introduction to Business, The Long Search.*

Persons Interviewed:

Dr. Donald A. Thigpen
Dean of Learning Resources
Region IV Director
Daytona Beach Community College
P.O. Box 1111
Daytona Beach, FL 32015
904-255-8131

Mr. Hugh Fisher, Vice President for Programming
WMFE-TV, Channel 24
2908 West Oak Ridge Road
Orlando, FL 32809
305-273-2300

Dr. Robert McCabe
Executive Vice President
Miami-Dade Community College
Miami, FL 33176
305-596-1213

Higher Education Instructional Television
Statewide Coordinator
Station WWVU-TV
West Virginia University
Morgantown, WV 26505
304-293-6511

Membership: Fifteen colleges and universities under the state-funded West Virginia University Board of Regents. WWVU-TV is licensed to the West Virginia Board of Regents; two other state-funded public broadcast stations are licensed to the West Virginia Educational Broadcasting Authority.

Area Covered: State of West Virginia

Governance. Six-person Higher Education Instruction Television Executive Committee, with representatives from the Board of Regents and each of the three television stations.

How Long in Operation. Operating since 1975; funded by Board of Regents since 1977.

Major Goals and Activities. To service the entire state with higher and continuing education courses for the nontraditional student.

Courses Offered: Fall, 1978—*The Long Search, The Growing Years, Earth, Sea and Sky, It's Everybody's Business, Africa File.*

Persons Interviewed:

Mr. C. Gregory Van Camp
Director, Office of Radio, Television and Motion Pictures
General Manager, WWVU-TV
West Virginia University
Morgantown, WV
304-293-6511

Dr. Jay Barton
Vice President and Provost for Academic Affairs
West Virginia University
304-293-5701

Kentucky Educational Television/Council on Higher Education
Telecommunications Consortium
West Frankfort Office Complex
U.S. 127 South
Frankfort, KY 40601
502-564-5483

Membership: All public and independent colleges and universities and Kentucky Educational Television.

Area Covered: State of Kentucky

Governance. An Advisory Board with representatives from each public university, one representative of the U.K. Community College System, one representative of the Council of Independent Kentucky Colleges and Universities and one representative of Kentucky Educational Television. This Advisory Board is chaired by the Coordinator of the Telecommunications Consortium who served full-time as the Council staff member for the project.

How Long in Operation: July 1, 1978

Major Goals and Activities The Telecommunications Consortium has been involved in necessary organizational activities, in providing telecourses on KET for college credit during the fall semester, and in planning teleconferences to determine the need for continuing education of professional groups

Courses Offered Fall, 1978 *The Long Search, Cinematic Eye, Guten Tag in Deutschland, Teaching Life Science in the Elementary School* Spring, 1979, *Guten Tag in Deutschland, New Approaches to High School Learning and Discipline, Of Earth and Man, Writing for a Reason, Designing Home Interiors, The Shakespeare Plays*, teleconferences for nurses, engineers, pharmacists, lawyers

Persons Interviewed:

Ms. Virginia G. Fox
Associate Executive Director for Broadcasting
Educational Television Authority
600 Cooper Drive
Lexington, KY 40502
606-233-0666

Dr Robert E Carter
Coordinator of Telecommunications Consortium
Council on Higher Education
West Frankfort Office Complex
U S. 127 South
Frankfort, KY 40601
502-564-5483

Southern California Consortium for Community Colleges Television
Office of the Los Angeles City School
Superintendent of Schools
9300 East Imperial Highway
Downey, CA 90242
213-922-6221

Membership Over 30 community colleges in 20 districts, using six public, commercial, and cable stations as outlets.

Area Covered The six counties of southern California, stretching from San Luis Obispo to Palm Desert and Ridgecrest to Barstow

Governance Each member district appoints at least one representative to the consortium, and meetings of all the reps - Plenary Sessions - are held twice a year Seven members are elected to the Executive Council, which is empowered by the members to make many decisions Decisions requiring research and study are often referred to committees: Curriculum, Production, Public Information, and Finances/Legislation, Executive Council. Legal authority resides in the Office of the Los Angeles County Superintendent of Schools The consortium functions according to a joint powers agreement.

How Long in Operation 1970

Major Goals and Activities. To provide televised courses for college credit through a cooperative effort to solve a variety of problems, from the selection of courses, academic advising, production staff, and facilities, to the acquisition of broadcast time. Provides a means for member colleges to share costs and make decisions elated to open circuit televised college instruction.

Courses Offered. Sixteen to eighteen per year.

Persons Interviewed:

Ms. Sally Beaty
Administrative Coordinator
Southern California Consortium for Community College Television
9300 East Imperial Highway
Downey, CA 90242
213-922-6221

Dr. Leslie Wilbur, Consultant
Office of the Los Angeles County Superintendent of Schools
9200 East Imperial Highway
Downey, CA 90242
213-922-9348

Dr. Bernard Luskin, President
Coastline Community College
10231 Slater Avenue
Fountain Valley, CA 92708
714-963-0811

Dr. Dale Heckman
California Post-secondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814
916-445-7933

Dr. Edward Decker
Dean of Instruction
Coastline Community College
714-963-0811

Mr. Don Gerdts
Station Manager
KOCE-TV
P O Box 2476
Huntington Beach, CA 92647
714-897-0302

To Educate the People Consortium
University Studies Weekend College
Wayne State University
6001 Cass Street
Detroit, MI 48202
313-577-2258

Membership. Higher education institutions, labor unions, public and educational television broadcasters, university-based labor education centers, adult educators

Area Covered International, headquarters at Wayne State University's Weekend College

Governance Organizing committee being formed.

How Long in Operation June 21, 1978

Major Goals and Activities To implement models for making higher education accessible to working adults, through seven functions resource-sharing, sharing of TV and audio courses and related materials; faculty and staff exchanges and development; collaboration in recruiting; a network of evaluation, development, and research projects and experts, a communication system; and collaboration in obtaining outside funding for the above six functions

Courses Offered. A four-year, full-time general studies program in social sciences, urban humanities, and science and technology, with a senior year project and courses in theory and method. Variants offered in urban studies, labor studies, and prison studies. Delivery modes workshops, television programs, and weekend conferences.

Person Interviewed:

Dr. Otto Feinstein
Professor of Political Science
University Studies Weekend College
Wayne State University
6001 Cass Street
Detroit, MI 48202
313-577-2258

Tri-State Consortium (Eastern Consortium)
Bergen Community College
400 Paramus Road
Paramus, NJ 07652
201-447-1500

Membership. Twenty-seven member colleges, plus the following cooperative members New Jersey Public Broadcasters WMHT, WNET, WSKG, Suburban Cable, Cablevision, and Vision Cable

Area Covered Originally founded to service institutions of higher education in the New York, New Jersey, and Connecticut area. However, soon to be enlarged to include the whole northeastern seaboard from Maine to Maryland.

Governance. Central office at Bergen Community College to coordinate activities, plus preview, research, and promotion committees to perform specialized functions.

How Long in Operation 1974

Major Goals and Activities: To bring together colleges, broadcasters, and publishers to share information and expertise on the use of media education for the distance learner.

Courses Offered. Consortium does not collect exact information on courses offered by each member.

Persons Interviewed:

Dr. Phillip Dolce
Chairman of Executive Council
Bergen Community College
Paramus, NJ 07652
201-447-1500

Dr. Janet Lieberman
Past President of Tri-State Consortium (1975–77)
Professor of Psychology
La Guardia Community College
212-TR9-3221

Dr. Don Burden
Senior Marketing Manager and Editor of Telecourse Materials
McGraw-Hill
1221 Avenue of the Americas
College Division 27
New York, NY 10020
212-997-3411

INTERVIEW QUESTIONNAIRE:
AACJC Adult Learning and Public Broadcasting Project

Name of Respondent

Title of Respondent

Institution

Instructions: Attached are a list of factors believed to help or hinder station-college consortia which serve the adult learner. Each general factor is followed with a number of subfactors.

Please read the list and answer these questions before the interview:

1. How important is each of the factors, as it is generally perceived by members of your consortium? In other words, how important do people at your consortium believe this factor is, in helping or hindering the success of the consortium? (Please simply give your best guess about their views.)
   1-Extremely important
   2-Fairly important
   3-Neutral
   4-Fairly unimportant
   5-Extremely unimportant

2. How much activity is devoted to each of the factors, in the opinion of the people in your consortium? In other words, how much of it is present? (Again, make your best guess of the general views of all those who work in the consortium.)
   1-A very large amount
   2-A large amount
   3-Just about enough
   4-Not enough
   5-Greatly lacking

3. A number of subfactors are listed under each large factor. Considering the situation in your particular setting, rank them in importance, from most to least important. Use (1) for most important, (2) for the next most important, and so on.

Then in our interview, I'll ask you for examples in each case of how that factor helped or hindered the consortium and how you overcame the problems.

Thank you for your assistance; I look forward to talking with you.

A. Commitment of Leaders. Key individuals at various levels, but particularly institutional leaders, must believe in the value of the enterprise and must make a tangible commitment to it

Rank the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

Check the importance as seen by members of your consortium
1-Extremely important
2-Fairly important
3-Neutral
4-Fairly unimportant
5-Extremely unimportant

Check the amount present at your consortium
1-A very large amount
2-A large amount
3-Just about enough
4-Not enough
5-Greatly lacking

		Importance 1	2	3	4	5	Amount 1	2	3	4	5
a	Resources of time, staff, and money made available by station, college, and community leaders										
b	Public statements of advocacy made by policymakers (college board members, presidents, deans of instruction, station managers, program directors)										
c	Special incentives and support services offered to staff members who contribute and participate										
d	Effort expended by leaders on solving political and operational problems										
e	Individuals with clout at college or station appointed as consortium representatives										

B. Governance. Consortia/institution authority relationships must be clearly delineated and a management system developed for implementation

Rank the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

a	Initial agreement reached on the purpose of the consortium, the differing expectations of various members explored, and a method for determining priorities established										
b	Appointment of a full-time professional to provide administrative leadership in budget management, course selection or development, personnel development and training, interpersonal relations										
c	Governance mechanisms established for each level (executive council of consortium, subcommittees such as curriculum, course promotion, finances, special committees at campus and station to perform necessary functions)										
d	Nitty-gritty operational arrangements carefully worked out so they can be easily administered (information on course schedules, registration, access to materials, credit)										
e	Regular sessions of the consortium scheduled for information exchange policy-making, specific decisions										

C. Learner-Centered Focus. The total instructional system must be designed and coordinated with the needs of the adult learner at the center

Rate the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

Check the importance as seen by members of your consortium
1-Extremely important
2-Fairly important
3-Neutral
4-Fairly unimportant
5-Extremely unimportant

Check the amount present at your consortium
1-A very large amount
2-A large amount
3-Just about enough
4-Not enough
5-Greatly lacking

		1	2	3	4	5	1	2	3	4	5
a	System has special game plan, including processes for academic administration, target population assessment, inservice training for counselors and course managers, curriculum development and design, research, and evaluation										
b.	Each course designed as a coordinated instructional system, with all components working together to serve the same instructional objectives										
c	Local support services foster involvement (personal contact by phone or mail, etc.) and feedback (grades, self-study quizzes, etc.)										
d	Administrative arrangements designed for adult learner (information and recruitment materials easily available; simple procedures available for registering, taking exams, obtaining course credit, etc.)										
e	Television programs offered at times convenient to the adult learner										

D. Stability. A firm financial and legal basis for operations must be established which allows for long-range planning and development

Rate the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

a	Constitution/bylaws of consortium spelled out in writing; legal/contractual authority vested in central administrative unit										
b	Sufficient funding to cover course lease fees, videotape stock, air time, promotion costs, administrative/instructor staff time										
c	Equitable financial assessment system, based on differing size and strength of member institutions										
d	Mechanisms exist for institutional contributions to provide venture capital for production of new courses										
e	Procedures exist for withdrawal of member institutions in an orderly, stable fashion										

E. Quality of Instructional Materials. Course materials offered (television, print, audio, other) must be excellent in learner appeal, academic content, production quality, and instructional design

Rank the following examples in order of their importance at your consortium. (1) is the most important, (2) is next, and so on

Check the importance as seen by members of your consortium
1-Extremely important
2-Fairly important
3-Neutral
4-Fairly unimportant
5-Extremely unimportant

Check the amount present at your consortium
1-A very large amount
2-A large amount
3-Just about enough
4-Not enough
5-Greatly lacking

		Importance					Amount				
		1	2	3	4	5	1	2	3	4	5
a	Materials meet learner's needs, stimulate interest, have broad appeal, and attract large, general audiences										
b	Materials are of high production quality and meet the standards of the station										
c	Materials have substantial educational content and meet the standards of the college										
d	Materials are structured to enhance motivation, participation, persistence, and learning on the part of the at-home learner										
e	Materials are designed for flexible and compatible use in a variety of settings										

F. Positive Station-College Relationships. The relationship must be based upon mutual self-interest, mutual respect, and mutual understanding of each others' priorities and constraints

Rank the following examples in order of their importance at your consortium. (1) is the most important, (2) is next, and so on

		Importance					Amount				
		1	2	3	4	5	1	2	3	4	5
a	Commitment from general manager/program director to educational broadcasting and to cooperative relationships with colleges, provision for curricular input at earliest possible stage										
b	Commitment from colleges to television-centered courses that are competitive in production quality with station's regular programming, respect for production expertise										
c	Joint awareness of importance of communicating schedules, course information changes, as far in advance as possible										
d	Joint awareness of politics of dealing with faculty and station personnel in a time of limited finances and limited facilities										
e	Joint commitment to building audiences and to marketing products nationally, adequate lead time between production and release for preparation of printed materials and for implementation of promotion and utilization plans										

G. System Linkages. A communication/clearinghouse system must be established between levels of governance (institutional/state/federal) for sharing of resources, information, expertise, and political support

Rank the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

Check the importance as seen by members of your consortium
1-Extremely important
2-Fairly important
3-Neutral
4-Fairly unimportant
5-Extremely unimportant

Check the amount present at your consortium
1-A very large amount
2-A large amount
3-Just about enough
4-Not enough
5-Greatly lacking

		Importance 1	2	3	4	5	Amount 1	2	3	4	5
a	Information available on existing courses, on available course development funds, and on new course production priorities										
b	Strategies developed for lobbying at local, state, and national level on behalf of the at-home "distance" learner										
c	Strategies developed for sharing expertise in staff development, institutional development, technology development, etc										
d	Strategies developed for promoting compatibility among organizations in the system (in response to the fact that, currently, different policies exist for credit-granting, staff salaries, finances, etc.)										
e	Systems linkages developed among colleges, among stations, and among consortia interested in television-centered materials development and use										

H. Supportive Context for Distance Learning. Policies at the local, state, and federal level must facilitate access, flexibility, and outreach

Rank the following examples in order of their importance at your consortium (1) is the most important, (2) is next, and so on

Local											
a	Flexible policies for admissions, transfer of credits, assessment of prior learning, competency-based assessments										
b	Cooperative relationships established with other community agencies business, industry, labor unions, museums, voluntary agencies, social service agencies										
c	Satisfactory arrangements with teachers' unions and broadcast station unions										
State											
d	Financial aid available for part-time "distance" students on same basis as to regular students, reimbursements available to institutions on same basis as for regular students										
Federal											
e	Policies and programs which support "distance" learning supported at federal level, funders interested in research and development on concept										

CONSORTIUM FACT SHEET

THE CONSORTIUM

1 Name of consortium

2 Name of consortium director

3 How long in position?

4 Consortium address

5 Phone

6 How many years has consortium been in existence?

7 Geographic area covered

8 Number of full-time consortium staff _____(list positions)

9 Services provided by consortium (please list)

10 Governance/organizational structure of consortium What decision-making bodies exist? Who is represented on them? (Please attach organizational chart.)

11 Financial base. How is the consortium funded? (Please attach statement of financial policies for the consortium.)

12 Legal base What contractual arrangements are made by the consortium? (Please attach copy of legal documents)

THE COLLEGES

13. Names and addresses of member colleges (include name and phone of campus telecourse coordinator, please)

	14 Campus unit offering telecourses				15 # of TV courses offered per sem	16 Average # of telecourse students per sem	17 Average total students per sem
	Cont Ed	Acad	Voc	Other			

THE STATIONS

18 Names and addresses of stations with whom consortium has a relationship (include name and phone of main contact person, please)

	19 Type of Station			20 Nature of Relationship			
	Commerc	Public-license type?	Cable	Co-prod	Contrib airtime	Buy time	Promote

THE STUDENTS

21 Do you have any data on the characteristics of your telecourse audiences? (Please attach any reports, evaluations, articles, memos, which describe them.)

22 What factors in a course seem most related to their satisfaction?

23 How do these characteristics compare with your general student population?

24 Are any audiences not now being served? Why?

25 What support services are offered to students?

BIBLIOGRAPHY

Adult Education by Television Geneva: European Broadcasting Union, 1977

Brock, Dee *ITV Close-up: The First Six Years.* Dallas DCCCD ITV Center, 1978.

Carlisle, Robert D. (ed). *Patterns of Performance Public Broadcasting and Education 1974 1976* Washington, D.C.: Corporation for Public Broadcasting, 1978

Chicago's TV College: A Fifth Report. Chicago: City Colleges of Chicago, 1974.

Evans, David L., and James F. Gollatscheck. "Reaching Communities Via Television and Radio: The Florida Model." *Community and Junior College Journal,* March 1976

Grupe, Fritz, and Susan Van Ness. *Interinstitutional Cooperation, Consortia, and Regionalism: Comprehensive Bibliography #1* Prepared for the Council on Interinstitutional Leadership, 8606 Jones Mill Road, Washington, D.C. 20015, 1977.

Heckman, Dale "Using Instructional Media Beyond Campus." Draft of report developed by the California Postsecondary Education Commission for the California State Legislature, January 1979

Katz, Elihu *Social Research on Broadcasting Proposals for Further Development* A report to the British Broadcasting Corporation, January 1977.

Kroll, Joe (ed). *Proceedings of the Fourth National Conference on Open Learning and Nontraditional Study.* Minneapolis, Minnesota, September 19-21, 1977.

Luskin, Bernard, and James Zigerell. "Community Colleges in the Forefront of Telecourse Development." *Community and Junior Colleges Journal,* March 1978

Patterson, Franklin. *Colleges in Consortia.* San Francisco: Jossey-Bass, 1974.

Perry, Sir Walter. *The Open University.* San Francisco: Jossey-Bass, 1974.

Project Outreach. Report to the California State Coordinating Council for Higher Education, Sacramento. A report funded by Title I of the Higher Education Act of 1965, Community Services and Continuing Education, 1973.

Purdy, Leslie, and Darrell Icenogle. *Classic Theatre: The Humanities in Drama.* Final Research Report. Coast Community College District, December 1976.

Real, James. "Coast Community College." *Change Magazine.* March 1978.

Yarrington, R. (ed). *Using Mass Media for Learning* American Association of Community and Junior Colleges, 1 Dupont Circle, N.W., Suite 410, Washington, D.C. 20036, 1979.

BIBLIOGRAPHY

I. BOOKS, ARTICLES, REPORTS, COLLECTIONS, ETC.

Adams, Terrence D. "Working With Broadcasters." In *Using Mass Media for Learning*, edited by Roger Yarrington, pp. 15-21. Washington, D.C.: American Association of Community and Junior Colleges, 1979.

Agency for Instructional Television. *Television in Higher Education*. Part I-Social Work Education, Part II-Psychology. Bloomington, Ind.: Agency for Instructional Television [originally published by AIT predecessor National Center for School and College Television (NCSCT)], 1966, 1973.

Agler, Linda S., and Theodore W. Pohrte. "College-Credit Courses by Open-Circuit Television." *Educational Technology*, October 1976, pp. 39-43.

Anandam, Kamala. *Annual Report for Open College, 1976-77*. Miami: Miami-Dade Community College (Open College), n.d. Appendices (Examples of RSVP Survey and RSVP Feedback Letter, Example of RSVP Feedback Letter for ENG 120, Summary of Students by Course for the Three Terms in 1976-77, RSVP Participation by Students by Course for the Three Terms in 1976-77; Utilization of the Two Examinations for the Six Modules in MATH 201 for the Three Terms in 1976-77, Data on End-of-Term Grade Distribution and Course Completion for the Three Terms in 1976-77, Results of Step-by-Step Multiple Regression Analysis for the Three Terms in 1976-77, Information About Students Included in the Multiple Regression Analysis for the Three Terms in 1976-77). Tables, Figures, Graphs.

Anandam, Kamala. *Assessment of Student Performance in an Open Learning System (Open College) During the Year 1973-74*. Miami: Miami-Dade Community College (Open College), n.d. Appendices (Open College Course Evaluations for Law, Psychology, and Ecology). Tables.

Anandam, Kamala. *ENG 120 "Writing for a Reason": Report on the First-Time Offering of an English Composition Course in Open College*. Miami: Miami-Dade Community College (Open College), May 1977. Appendices (Sample RSVP-Writing Assignment One, Sample Open College Course Evaluation by Students by Telephone, Occurrences of Errors in Mechanics in Ten Assignments-Fall, 1977-78). Tables.

Anandam, Kamala. *Report on Student Performance in an Open Learning System (Open College) During the Year 1974-75*. Miami: Miami-Dade Community College (Open College), n.d. 28 pp. Appendices (Course Enrollment in Open College by Sex By Term, 1974-75, Summary of General Information Survey Completed by Students in Open College, Distribution of Students in the Completion, Non-completion Categories at the End of Term, 1974-75, Completion Summary, Course Evaluation Summary). Tables.

Anandam, Kamala. *Report on Student Performance in Open College During the Year 1975-76*. Miami: Miami-Dade Community College (Open College), n.d. Appendices (Summary on Students/Course in Open College 1975-76, Students Who Withdrew from the Course 1975-76, Data on End-of-Term Grade Distribution and Completion of Course Given as Percentages 1975-76, Participation of Students/Course in Open College 1975-76, Number of Survey Cards Received by Weeks in the Term, Number of Survey Cards Mailed in by Students by Week, Spring/Summer, 1975-76, Summary Statements About Students' Evaluation of Courses Offered in Open College 1975-76). Tables.

Anandam, Kamala. *Semester Report Open College, 1975-6*. Miami: Miami-Dade Community College (Open College), 1976.

Anandam, Kamala, and Bess Fleckman. "Telephone Dialogue Intervention in Open Learning Instruction." *Journal of College Student Personnel*, May, 1977, pp. 219-223.

Anandam, Kamala, and Donald E. Myers. *RSVP Instructional Capabilities*. Miami: Miami-Dade Community College (Auxiliary Services), 1976.

Apt, Patricia H., and Gladys Ebert. *A Study of Characteristics of UM-A Students Across States*. Lincoln, Neb.: University of Mid-America, August 1978.

Association for Media-Based Continuing Education for Engineers, Inc. "AMCEE Videotape Courses for Engineers, Scientists, and Technical Managers." *Monitor*, September 1, 1979, p. 1.

Association for Media-Based Continuing Education for Engineers, Inc. *The Use of Media-Based Materials by Professional Societies in Continuing Education*. Atlanta: AMCEE, 1978. Conference Proceedings, New York, September 28-29, 1978.

Aversa, Frances M. *The Consumer Experience (First Offering) Course Evaluation Report*. Lincoln, Neb.: University of Mid-America (Office of Marketing and Information), September, 1975. Appendix (Learner responses).

Aversa, Frances M. *Report of a Pilot Study of Pests, Pesticides, and Safety for the Private Applicator*. Lincoln, Neb.: University of Mid-America (Office of Marketing and Information), April 1977.

Aversa, Frances M., and David C. Forman. *Issues in the Evaluation of Educational Television Programs*. Lincoln, Neb.: University of Mid-America (Office of Marketing and Information), August 1976.

Beaty, Sally V. "Forming College Television Consortia." In *Using Mass Media for Learning*, edited by Roger Yarrington, pp. 39-50. Washington, D.C.: American Association of Community and Junior Colleges, 1979.

Bertelsen, Paul, Paul Fordham, and Jack London. *Evaluation of the Wayne State University's University Studies and Weekend College Program*. New York: UNESCO-USA, 1976. (Technical Report RP/1975-76/1.321.6 Serial No. FMR/ED/SCM/77/176.)

Bonham, George W. "The Open University: Lessons for the Future." *Change*, November 1978, pp. 14-15.

Boulding, Kenneth. *The Image: Knowledge in Life and Society*. Ann Arbor: University of Michigan Press, 1956.

Bramble, William J., Claudine Ausness, and Donna Mertens. *Cost Estimation Model for Alternative Formats and Delivery Modes Technical Report Number 10* Lexington, Ken University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, September 1975

Broadcasting, May, 1978

Brodinsky, Ben. "The University of Mid-America No Campus, No Faculty, No Degrees" *Phi Delta Kappan*, May 1976, p 613 Bicentennial Project '76 article

Brown, Laurence A. *Accounting I (First Offering) Course Evaluation Report* Lincoln, Neb University of Mid-America (Office of Marketing and Information), August 1975

Brown, Laurence A. *Accounting I Second Offering) Course Evaluation Report* Lincoln, Neb University of Mid-America (Office of Marketing and Information), September 1975

Brown, Laurence A. *Employment of an Open Learning Course with Traditional and Nontraditional Learners Working Paper No 13* Lincoln, Neb University of Mid-America (Office of Research and Evaluation), 1976 Not reviewed

Brown, Laurence A. *Learner Responses to the Use of Television in UMA Courses Working Paper No 8* Lincoln, Neb University of Mid-America (Office of Marketing and Information), July 1975

Brown, Laurence A., and Milan Wall. *Report of the University of Mid-America Office of Marketing and Information Survey of Institutions Offering Television Courses Technical Report No 4* Lincoln, Neb University of Mid-America (Office of Marketing and Information), April 1978 Appendices (Institutional questionnaires and responses)

Brown, Robert D., et al. *Evaluation of a Variety of Television Lesson Formats for Potential Adult Learners in an Open Learning System* Washington, D C American Educational Research Association, April 1974 Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois, April 15 19, 1974

Burch, Ellen, and Howard Myrick. *The Public Television Audience A Closer Look* Washington, D C Corporation for Public Broadcasting, 1979

Burton, John K., David C. Forman, and Robert L. Kennedy. *Learner Evaluation of the State University of Nebraska, Fall 1975 and Spring 1976 Course Offerings (Third and Fourth Offerings) Course Evaluation Report* Lincoln, Neb University of Mid-America (Office of Marketing and Information), April 1977

California Postsecondary Education Commission. *Using Instructional Media Beyond Campus One of a Series of Reports on Lifelong Learning, 1979* Sacramento, Calif, State of California (California Postsecondary Education Commission), May, 1979 Technical Report, Dale M Heckman, Principal Investigator

California State Legislature, Joint Committee on Telecommunications. *Telecommunications and the Public Interest* Sacramento, Calif California State Legislature (Joint Committee on Telecommunications), December 1974 (Note As copies of this document are depleted, individual requests should be made through a local library on an interlibrary loan basis through the California State Library, Sacramento, California)

Carlisle, Robert D. B. *College Credit Through TV Old Idea, New Dimensions* Lincoln, Neb Great Plains National Instruction Television Library, 1974 Appendices (Interviews, Public Television Licensee poll).

Carlisle, Robert D. B. *Media and the Adult Student One Man's Journal* Lincoln, Neb., Great Plains National ITV Library, 1976

Carlisle, Robert D. B. *Patterns of Performance Public Broadcasting and Education 1974-1976*, Washington, D.C. Corporation for Public Broadcasting Office of Educational Activities, 1978

Carlisle, Robert D. B. Appendix G in *Future Directions for Open Learning*, edited by Ronald Gross, *et al* Prepared for Invitational Conference co-sponsored by the University of Mid-America and National Institute of Education, Washington, D.C., April 19-20, 1979.

Carnegie Commission on the Future of Public Broadcasting. *A Public Trust The Report of the Carnegie Commission on the Future of Public Broadcasting*. New York, Bantam, 1979.

Carnegie-Mellon University, Department of Engineering and Public Policy (Carnegie Institute of Technology) and School of Urban and Public Affairs. *Instructional Television Prospects for Application to Continuing Education in Pittsburgh and the Surrounding Tri-State Area (Final Report)* Pittsburgh, Carnegie-Mellon University (Department of Engineering and Public Policy), May 2, 1978 Appendices not included; available on request.

Carnegie Commission on Higher Education. *Less Time, More Options Education Beyond the High School* New York McGraw-Hill, 1971.

Cavert, C. Edward, ed. *Conference Proceedings of the Third National Conference on Open Learning and Non-traditional Study* Lincoln, Neb University of Mid-America (also sponsored by Joint Council on Educational Telecommunications and Federal Interagency Committee on Education), June 1976. Not reviewed

Cavert, C. Edward, ed. *Designing Diversity Conference Proceedings of the Second National Conference on Open Learning and Nontraditional Study*. Lincoln, Neb. University of Mid-America (also sponsored by Joint Council on Educational Telecommunications, and Federal Interagency Committee on Education), June 1975. Not reviewed

Chamberlain, Martin N. "The Extension of Higher Education by Mass Media." In *Continuing Education A Report from University of California Extension*, pp. 4-5, Fall 1978.

Chamberlain, Martin N., and Darrell Icenogle. "Courses From Television Potential for International Education" La Jolla University of California, San Diego (University Extension), 1975.

Chernoff, Laurence, and Kamala Anandam. *Student Performance and Their Evaluation of Course "Ornamental Horticulture" (ORH 101), Fall 1976-77* Miami, Fla Miami-Dade Community College (Open College), n d. Appendices (Sample Forms for Student Course Evaluation; Statements by Individual Students)

Coast Community College District. *KOCE-TV Needs-Assessment Survey Audience Analysis Telephone Survey* Costa Mesa, Calif. Coast Community College District (Office of Educational Planning and Development), August 1975.

Coast Community College District. *KOCE-TV Needs Assessment Survey Target Population Reactor Groups* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), April 1974.

Coast Community College District. *KOCE-TV Telecourse Evaluation Student Reaction to Television Courses, Fall Semester, 1973 '74* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), August 1974.

Coast Community College District. *KOCE-TV Needs Assessment Survey Television Students' TV Viewing Log Fall 1973 1974 and Spring 1973 1974* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), October 1974.

Coast Community College District. *KOCE-TV Needs Assessment Survey Target Population Reactor Groups* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), April 1974.

Coast Community College District. *KOCE-TV Telecourse Evaluation Student Reaction to Television Courses, Spring Semester, 1973 '74* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), December 1974. iii, 160 pp.

Coast Community College District. *KOCE-TV Telecourse Evaluation Student Reaction to Television Courses, Fall Semester, 1973 '74* Costa Mesa, Calif. Coast Community College District (Office of Institutional Research), August 1974.

Coastline Community College. *Characteristics of Television Course and Student Enrollment Research Bulletin No. 2* Fountain Valley, Calif. Coastline Community College (Admissions, Guidance, and Information Services), October 1976.

Coastline Community College. *Characteristics of Television Course and Student Enrollment Research Bulletin No. 3* Fountain Valley, Calif. Coastline Community College (Admissions, Guidance, and Information Services), October 1977.

Coastline Community College. *Characteristics of Television Course and Student Enrollment Research Bulletin No. 13* Fountain Valley, Calif. Coastline Community College (Admissions, Guidance, and Information Services), March 1978.

Coastline Community College. *Compilation of Responses Customer Questionnaire on "The Growing Years" Study Guide* Fountain Valley, Calif. Coastline Community College (Office of Institutional Research), May 1978.

Coastline Community College. *Compilation of Responses Questionnaire on "The Growing Years"* Fountain Valley, Calif. Coastline Community College (Office of Institutional Research), January 1978.

Coastline Community College. *Data Display Comparing Fall 1977 and Spring 1978 Registration Patterns Research Bulletin No. 15* Fountain Valley, Calif. Coastline Community College (Admissions, Guidance, and Information Services), 1978.

Coastline Community College. *Residence Distribution by City Reflecting Telecourses Research Bulletin No. 4* Fountain Valley, Calif. Coastline Community College (Admissions, Guidance, and Information Services), November 1977.

Coastline Community College. *Student Evaluation of Television Courses, 1972-1973* Fountain Valley, Calif. Coastline Community College (Office of Instructional Research), August 1973. Note. Unpublished report.

Corporation for Public Broadcasting, Office of Communication Research. *A Qualitative Study The Effect of Television on People's Lives* Washington, D.C.. Corporation for Public Broadcasting, October 1978.

Corporation for Public Broadcasting, Office of Educational Activities. *A Listing of Educational Series Broadcast by Public Television Licensees 1978-79* Washington, D.C. Corporation for Public Broadcasting, January 1979.

Corporation for Public Broadcasting, Office of Educational Activities. *A Study of Public Television's Educational Services, 1975-1976* Washington, D.C. Corporation for Public Broadcasting, August 1978. x, 91 pp. Appendices (Sample Form, Biennial Instructional Television Survey Academic Year July 1, 1975 to June 30, 1976, Summary of Reported Public Television Educational Activities by State and Licensee).

Council for Interinstitutional Leadership (CIL). *The Development and Presentation of a Methodology for Analyzing the Cost Effectiveness of Interinstitutional Programs.* Washington, D.C. Council for InterInstitutional Leadership, October 17, 1978 (third draft).

Crow, Mary Lynn. *Teaching on Television.* Arlington, Texas: University of Texas at Arlington (Faculty Development Resource Center), 1977.

Dallas County Community College District, Instructional Television Center. *Comparison of Telecourse and On-Campus Grade Distributions from the Spring Semester of 1978* Dallas, Texas Dallas County Community College District (Instructional Television Center), 1978.

Dallas County Community College District, Instructional Television Center. *ITV Close-Up The First Six Years* Dallas, Texas. Dallas County Community College District (ITV Center), May 1978.

Dallas County Community College District, Instructional Television Center. *Student Perceptions of Television Courses at Dallas County Community College District Spring Semester of 1978* Dallas, Texas. Dallas County Community College District (Instructional Television Center), 1978.

Dallas County Community College District, Office of Special Services. *Evaluation of the Business 105 Telecourse "It's Everybody's Business"* Dallas, Texas Dallas County Community College District (Office of Special Services), September 15, 1977.

Dallas County Community College District, Office of Special Services. *Evaluation of the Psychology 105 Telecourse "As Man Behaves"* Dallas, Texas Dallas County Community College (Office of Special Services), November 10, 1977.

Dallas County Community College District, Office of Special Services. *Summary of the Evaluation of the English 101 Telecourse "Writing for a Reason."* Dallas, Texas: Dallas County Community College District (Office of Special Services), October, 1976

Danielson, J. D., and William J. Seiler. *Learners' Cognitive Style and Levels of Learning in Television and Print Instruction for Use in Open Learning: An Exploratory Study.* Lincoln, Neb.: University of Mid-America, November 1978

Dirr, Peter, Marilyn Kressel, and Ronald Pedone. *Instructional Uses of Television by Two-Year Colleges, 1978-79.* Washington, D.C.: American Association of Community and Junior Colleges (Adult Learning and Public Broadcasting Project), July 1979. Report from a cooperative effort of the American Association of Community and Junior Colleges (AACJC), the Corporation for Public Broadcasting (CPB), and the National Center for Education Statistics (NCES).

Dirr, Peter, and Ronald Pedone. "Higher Education Utilization Study (HEUS), Preliminary Report." Washington, D.C.: Corporation for Public Broadcasting and National Center for Education Statistics, November 1979

"'Disks' Played on TV sets . . .." *Wall Street Journal*, December 13, 1978, p. 40

Dordick, Herbert S., Helen G. Bradley, and Glen Fleck, with the assistance of Stratton Rice. *ITV (Instructional Television): A User's Guide to the Technology.* Washington, D.C.: The Corporation for Public Broadcasting (Office of Engineering Research), 1979

Duby, Paul B., and David R. Gitlow. "Students Enroll in a Model Television Course: The City Colleges of Chicago Present *The Ascent of Man* as a Credit Course on Open Broadcast." Fall 1975. Preliminary draft, not for circulation, unpublished manuscript

Earle, George. "Home can be a campus, too, some find." *Farmland News*, June 15, 1977

Eastwood, Lester F., Jr. *Motivations and Deterrents to Educational Use of "Intelligent Videodisc" Systems.* St. Louis, Mo.: Washington University (Departments of Technology and Human Affairs and of Electrical Engineering), January 12, 1978. Paper prepared for the National Institute of Education.

Edelson, Alvin L. "Educator/Broadcaster Cooperation - Key to the Success of 'TV College.'" *Educational and Industrial Television*, March 1976, pp. 23-24

Eggert, John D. *Making It Count (First Offering): Course Evaluation Report.* Lincoln, Neb.: University of Mid-America (Office of Marketing and Research), September 1975. Appendix (Learner responses)

Eight Years of TV College: A Fourth Report. Chicago, Ill.: City Colleges of Chicago (Center for Instructional and Staff Development), n.d. A survey of activities through 1964.

Empire State College, Office of Research and Evaluation. "Independent Study Program - WNET Course 101." Final Report and Recommendations (mimeographed). Saratoga Springs, N.Y.: Empire State College, August 1978

Epstein, Charlotte. "Science and Society: A New Network Series." *Community and Junior College Journal*, May 1975, pp. 6-7

Erickson, Clifford G., and Hymen M. Chausow. *Chicago's TV College: Final Report on a Three Year Experiment.* Chicago, Ill.: Chicago City Junior College, August 1960

Federal Communications Commission, Cable Television Bureau. *"Regulatory Developments in Cable Television."* Washington, D.C.: FCC, 1976

Feinstein, Otto, and Frank Angelo. *To Educate the People: An Experimental Model for Urban Higher Education for the Working Adult.* Detroit: Wayne State University (Center for Urban Studies), 1977

Field, Hyman H. "Role of the Faculty in Mass Media Courses." In *Using Mass Media for Learning*, edited by Roger Yarrington, pp. 63-68. Washington, D.C.: American Association of Community and Junior Colleges, 1979

Fitch, John. *Here We Go: Satellite Telecommunications in Our Future.* San Diego, Calif.: Public Service Satellite Consortium (PSSC), October 1978. Remarks by John Fitch, Association for Media-Based Continuing Education for Engineers (Georgia Institute of Technology, Atlanta, Georgia) to the Public Service Satellite Consortium Third Annual Conference on Satellite Communications for Public Service.

"Focus on: QUBE," *Video* (Summer 1978), pp. 43-45.

Ford Foundation. *Report on the Subcommittee on Education of the Telecommunications Task Force.* New York: Ford Foundation, 1973

Forman, David C. *An Evaluator's Notebook: A Collection of Evaluation Reports and Memorandum on a Course Development Project.* Lincoln, Neb.: University of Mid-America (Office of Formative Evaluation), May 1976

Fox, Virginia G. *Instructional Television in Kentucky: A Case Study.* Lexington, Ken.: Kentucky Authority for ETV, February 6, 1978. Paper presented to the Carnegie Commission on the Future of Public Broadcasting, February 6, 1978

Gaunt, Joseph H., Marge A. Engelman, and Lee D. O'Brien. "The Forgotten Fourth: Cooperating Faculty Members in College TV Courses." *Public Telecommunications Review*, November/December 1977, pp. 53-55

Gaunt, Joseph, Marge A. Engelman, and Lee D. O'Brien. "Professional Emphasis." *Public Telecommunications Review*, November/December 1977, pp. 53-55.

Goldstein, Michael. *Federal Policy Issues Affecting Instructional Television at the Postsecondary Level.* Washington, D.C.: American Association of Community and Junior Colleges (Adult Learning and Public Broadcasting Project), 1979. Paper prepared by Michael Goldstein (Attorney-at-Law, Dow, Lohnes and Albertson) with the assistance of Helen F. Discenhaus for the AACJC National Assembly on Station/College Cooperation, September 5-7, 1979

Gooler, Dennis D. *Criteria for Evaluating the Success of the University of Mid-America.* Lincoln, Neb.: University of Mid-America, August 1975. In-house Working Paper #9

Gripp, Tom. "Telecourses Have Designs on You." *THE Journal: Technological Horizons in Education*, April 1977, pp. 18-19

Gross, Ronald. "The Other Open University: Part I: The Producers, Part II: Colleges Join Forces to Buy and Use Telecourses." *Planning for Higher Education*, August 1978, pp. 9-19, 25-36 (Profiles 23 and 24 of the Educational Facilities Laboratories. Reprinted in Weinstock.)

Gross, Ronald. *Open Learning Basic Data on Seven Participating Projects and Background on Issues for Discussion* Washington, D C National Institute of Education (NIE), April 1979 Background paper prepared for the Invitational Conference on Future Directions for Open Learning, co-sponsored by the University of Mid-America and the National Institute of Education, Washington, D C , April 19 20, 1979

Gross, Ronald. *Higher/Wider/Education A Report on Open Learning* New York Ford Foundation, 1976

Gross, Ronald. "A Solution Whose Problem Has Arrived Technology for Nontraditional Study" In *Communications Technologies in Higher Education 22 Profiles*, edited by Ruth Weinstock, pp 49 55 Washington, D C Communications Press, Inc , 1977

Grossman, Lawrence k. "Talking Back About Public Broadcasting" *Educational & Industrial Television* April 1979, pp 24ff

Gunn, Hartford H., Jr. "Window on the Future Planning for Public Television in the Telecommunications Era" *Public Telecommunications Review* (A Publication of the National Association of Educational Broadcasters), July/August 1978, entire volume (special issue)

Gunn, Timothy. "FOCUS ON WNET/Thirteen's Adult Open Learning Program" *The British Open University Foundation, Inc An Occasional Newsletter*, June, 1979, pp. 1 4

Harris, Chip, and Dee Brock. "Effective Community Promotion of Telecourses" In *Using Mass Media for Learning*, edited by Roger Yarrington, pp 83 89 Washington, D C American Association of Community and Junior Colleges, 1979

Hartley, Robert Wayne. *Marketing to Nontraditional Audiences* Lincoln, Neb University of Mid-America, October 19, 1978 Presentation to Open Learning Conference on the Nontraditional Learner, sponsored by the University of Mid-America at Kansas City, Missouri on October 19, 1978

Heyer, Mark. "The Video Consumer-Interactive TV in the Home" *Educational and Industrial Television*, April 1979, pp 56ff

Hitchens, Howard, ed. *Learning Via Telecommunications Readings from Audiovisual Instruction-3* " Washington, D C Association for Educational Communications & Technology (AECT), Publications Department, 1978

Huachlander, Marjorie E. *The Ascent of Man A Multiple of Cases' I Case Study* Volume I Summary, Volume II Research Report Washington, D C Corporation for Public Broadcasting, May 1977

Hoehn, Robert E., and John Givens. "Astroteaching, Interaction by Satellite" In *Learning Via Telecommunications Readings from Audiovisual Instruction-3*" (reprinted from *Audiovisual Instruction*, March 1977) Washington, D C Association for Educational Communications & Technology (AECT), 1978

Howard, Richard, and Marlowe Eroke. *Telecommunications and the National Association of State Universities and Land Grant Colleges* A paper submitted to the NASULGC Educational Telecommunications Committee Washington, D C National Association of State Universities and Land Grant Colleges, 1979 Appendix (Telecommunications Questionnaire Form)

Howell, Floyd, Jr. *Annual Statistics for Open College, 1977 1978* Miami, Fla Miami-Dade Community College (Open College), n.d.

Illinois, Joint Education Committee: Adult, Vocational and Technical Education. *Study of Adult Learners* September 26, 1978 Presented to the Joint Education Committee by the staffs of the Illinois Board of Higher Education, State Board of Education, State Advisory Council on Adult, Vocational and Technical Education; Item #15-A, November 14, 1978

"Interact—A Microwave Medical Network." *Educational & Industrial Television* April 1979, pp. 62ff

James, Thomas O'Connor. *The Costing of a Consortium Project*, Washington, D C Council for Interinstitutional Leadership (CIL), October, 1978 Address to the Annual Meeting of the Council for Interinstitutional Leadership, Washington, D.C

Jelen, Charlanne. "The Administration of a Telecourse Operations Department and the Interface Between the Student, Instructor and College Campus" *THE Journal Technological Horizons in Education*, October 1977, pp 19ff

Jelen, Charlanne, and Adele Hirschfield. *Handbook for Coordinated Instructional Systems Course Learning Managers* Fountain Valley, Calif Coastline Community College (Coordinated Instructional Systems, A Division of the Office of Instruction), Spring 1978 (revised)

Joint Council on Educational Telecommunications. "ITFS Alert No. 1." Washington, D C JCET, April 1976

Joint Council on Educational Telecommunication. "JCET Report on National Funding of Educational Telecommunications." Washington, D C. JCET, n.d [?1978].

Jordan, John. "Profile James J Zigerell." *Focus, Newsletter on Media Instruction*, Vol II, No 2 (n.d , distributed December 1978), p. 10–11.

KAET-TV. "Undercover Survey." Tempe, Ariz KAET-TV, n d

Katzman, Nathan, and Kenneth Wirt. *Public Television Programming by Category 1976* Washington, D.C . Corporation for Public Broadcasting, August 1977 Appendices (Secondary Schedules: Computation of Standard Error; Method and survey Operations, Survey Instruments and Cover Letters, ITV Grade Level by Subject Matter).

Kelly, J. Terence, and Kamala Anandam "Communicating with Distant Learners" In *Using Mass Media for Learning*, edited by Roger Yarrington, pp 71 80 Washington, D C American Association of Community and Junior Colleges, 1979

Kelly, J. Terence, and Kamala Anandam. *RSVP A Faculty-Computer Partnership* (Supplement Number 1 to *RSVP Instructional Capabilities*) Miami, Fla Miami-Dade Community College (Auxiliary Services), n d

Kelly, J. Terence, and Kamala Anandam. *RSVP Conceptual Framework for Course Planning* (Supplement Number 2 to *RSVP-Instructional Capabilities*) Miami, Fla Miami-Dade Community College (Auxiliary Services), n d

Kelly, J. Terence, and Kamala Anandam, eds. *RSVP Human Reflections* (Supplement Number 3 to *RSVP-Instructional Capabilities*) Miami, Fla Miami-Dade Community College (Auxiliary Services), June 1977

Kennedy, Jack. "Nation Watches 1 MV Take 1st Steps" *Lincoln Nebraska Journal* May 19, 1976

Kiesling, Herbert. "Economic Cost Analysis in Higher Education The University of Mid-America and Traditional Institutions Compared" *Educational Communication and Technology A Journal of Theory Research and Development* Spring 1979, pp 9 24

Leveridge, Leo I. "The Potential of Interactive Optical Videodisc Systems for Continuing Education" *Educational & Industrial Television* April, 1979, pp 35 38

Lehmann, Timothy, and Martin Thorsland. *Empire State College Field Test of British Open University Courses Phase I (January 1977 June 1977)* Empire State College Research Series Prepared by the Offices of Research and Evaluation and Academic Development Saratoga Springs, N Y Empire State College, December 1977

Lipson, Joseph. "Technology and Adult Education A Report on the University of Mid-America Experiment." *THE Journal Technical Horizons in Education,* September/October 1977, pp 36 38, 49 50

Locatis, Craig N. *Organizational Delivery Systems and Media for Open Learning The Case for Public Libraries* Lincoln, Neb University of Mid-America (Office of Marketing and Information), September 1975

Lord, Jerome E. *Adult Preferences for Media-Assisted Learning Some Considerations* Washington, D C U S Dept of Health, Education, and Welfare, National Institute of Education (NIE), February 1979

Los Angeles Community College District (LACCD). *Instructional Television Evaluation Report 1977 1978* (Nancy Conrath, Consultant, Research and Evaluation) Los Angeles Los Angeles Community College District (LACCD), Division of Educational Planning and Development, August 1978

Luskin, Bernard J. "Serving the Adult Learner" In *Using Mass Media for Learning* edited by Roger Yarrington, pp 23 27 Washington, D C American Association of Community and Junior Colleges, 1979

Luskin, Bernard, and James Zigerell. "Community Colleges in Forefront of Telecourse Development" *Community and Junior College Journal* March 1978, pp 44 45

Maeroff, Gene I. "About Education TV Is Rarely Used as an Instructional Tool" The *New York Times,* November 2, 1977, p 71

Martin, R., and McCartney, R.J. "The Future Revised Education's Big Boom Is Ending, but Studies to Get More Diverse" April 8 1976

McBride, Jack. "The Market Need for Off-Campus Cable-Based Higher Education" *Proceedings of the Conference on Cable Television* January 1974 Paper presented at the Conference on Cable Television and the University, Dallas, Texas January 29 31, 1974

McBride, Jack. "A Working Model for Instructional Television" *Educational Technology* May 1976

McCabe, Robert H. "The Economics of Television-Centered Courses" In *Using Mass Media for Learning,* edited by Roger Yarrington pp 29 36 Washington, D C American Association of Community and Junior Colleges, 1979

McClellan, George A. "Yes, Virginia, There Is a College Course for You" *Texas Newsletter on Media Instruction* Vol II, No 2 (n d distributed December 1978), pp 4 7

McElreath, Mark P. "Developing a Strategy for Adult Education Via Mass Media" *Adult Education A Journal of Research and Theory in Adult Education,* Fall 1974, p 23 33

McNeil, Donald R. *Future Directions of the University of Mid-America* Lincoln, Neb University of Mid-America, November 8, 1979 Paper presented to the Executive Meeting of University of Mid-America at Lincoln, Nebraska, November 8, 1978

Mertens, Donna M., and Lea J. Perritt, eds. *Summative Evaluation of Workshops Fall, 1977, Technical Report Number 20* Lexington, Ken University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, 1978

Mertens, Donna M. and William J. Bramble. *Results of Appalachian Education Satellite Project Needs Assessment Conferences Technical Report Number 14* Lexington, Ken University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, June 1976, Appendix (Complete list of additional needs in areas of Education, Medicine and Health, Business and Industry, Human Resource and Government)

Mertens, Donna M., and William J. Bramble. *Review of the Literature Appalachian Needs in Five Program Areas Technical Report Number 13* Lexington, Ken University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, June 1976

Miami-Dade Community College. *What Do Students Say About the Television Series on Roots?* Miami, Fla Miami-Dade Community College (Open College), n d

Middleton, Lorenzo. "Telecourse Boom Hits Community Colleges" *The Chronicle of Higher Education,* April 1978, p 9

Mittelstet, Stephen K. "Telecourse Design, Development, and Evaluation" In *Using Mass Media for Learning,* edited by Roger Yarrington, pp 53 61, Washington, D C American Association of Community and Junior Colleges, 1979

Mittelstet, Stephen K. "Telecourses Recruit" *Community and Junior College Journal,* March 1978, pp 20 21.

Molenda, Michael. "Instructional Television in Higher Education" In *Proceedings of the Conference on Cable Television* Princeton, N J EDUCOM, January 1974 Paper presented at the Conference on Cable Television and the University, Dallas, Texas, January 29 31, 1974

Moore, A. B. "AESP Satellite Extends Program to Appalachia" *Learning Resource Index Health,* October, 1978

Morgan, Robert P. "Communications Technology in the Future of Higher Education in the United States" In *Proceedings of International Symposium on Communications Media in the Future of Higher Education,* pp 60 67 Stuttgart Germany Deutsche Verlags-Anstalt GmbH, 1974

Morgan, Robert P. "Telecommunications and Education in the USA" *Telecommunications Policy,* September 1977, pp 329 341

Morgan, Robert P., *et al.* *Large Scale Educational Telecommunications Systems for the U.S.: An Analysis of Educational Needs and Technological Opportunities.* St. Louis, Mo.: Washington University (Center for Development Technology), April 1975. A report by the Center Research staff, sponsored by National Science Foundation.

Munshi, Kiki Skagen, and Darrell Icenogle. "National Courses Through Television." In *Learning Via Telecommunications: Readings from the Annual Instruction-3.*" pp. 13-14. Washington, D.C.: Association for Educational Communications & Technology (AECT), 1978.

Nicholson, Morris E. "Report on Credentialing Questionnaire, University of Minnesota, Continuing Education in Engineering and Science" (memo), June 22, 1979.

Nohling, David LeRoy. *Broadcast Television for Higher Education Credit in Western Pennsylvania: Guidelines for a Cooperative Council.* Ann Arbor, Mich.: Xerox University Microfilms. Also in *Dissertation Abstracts International*, 1974 (Order No. 74-16, 552). Dissertation, University of Pittsburgh, 1973.

Novalis, Carol M. *The FOOTSTEPS Experience: Formative Evaluation in the Development of Learning Materials for Adults.* Silver Spring, Md.: Applied Management Sciences, Inc., January 1979. Paper presented at University of Maryland Research Conference on Lifelong Learning held January 10-11, 1979.

Novalis, Carol M. *Formative Evaluation and Decision-Making for FOOTSTEPS.* Silver Spring, Md.: Applied Management Sciences, Inc., October 1978. Paper presented at the 54th National Association of Educational Broadcasters Convention ("Making Diversity Work") held in Washington, D.C., October 29-November 2, 1978.

PSSC Newsletter, October 1978.

Park, Rolla Edward. *Potential Impact of Cable Growth on Television Broadcasting.* (a report prepared under a grant from the Ford Foundation). Santa Monica, Calif.: The RAND Corporation, October, 1970. (Report No. R-587-FF).

Perrine, Jay R. *Telecommunications Technology and Rural Education in the United States.* St. Louis, Mo.: Washington University (Center for Development Technology), March 1975. (M.A. Thesis, Program in Technology and Human Affairs.)

Perritt, Lea J., and Donna M. Mertens. *Summative Evaluation of Workshops: Spring 1978: Technical Report Number 24.* Lexington, Ken.: University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, November 1978.

Perritt, Lea J., and Donna M. Mertens. *Summative Evaluation of Workshops: Summer, 1977: Technical Report Number 18.* Lexington, Ken.: University of Kentucky, Appalachian Education Satellite Project (AESP), Resource Coordinating Center (RCC), Evaluation Component, December 1977.

Perritt, Lea J., *et al.* *Summative Evaluation of Workshops: Summer 1978.* Lexington, Ken.: University of Kentucky, Appalachian Education Satellite Program (Technical Report Number 28), 1978.

Perritt, Lea J., *et al.* *Summative Evaluation of Workshops: Fall 1978.* Lexington, Ken.: University of Kentucky, Appalachian Education Satellite Program (Technical Report, Number 27), 1978.

"The Phillips-Magnavox/MCA Magnavision Discovision System." *Educational and Industrial Television*, January 1979, pp. 35-36.

Pohrte, Theodore W., comp. *A Summary of the Instructional Television Seminar July 10 and 11, 1978.* Dallas: Dallas Community College District (Instructional Television Center), February 1979.

Pool, Ithiel de Sola. "Some Hypotheses about the Cost Effectiveness of Satellites in Education in the United States." Washington, D.C.: National Institute of Education, 1976.

Pothier, Dick. "Phone-In Television: Another Kind of Interaction." *Educational & Industrial Television*, April 1979, pp. 52-54.

Prange, W. Werner. "Educational Technology: We Need a New Approach." *Public Telecommunications Review*, August 1973, pp. 12-15.

Prange, W. Werner, Jacqueline Maki, and Joseph R. Gaunt. "Defining Faculty Rights in Recorded Courseware." *Public Telecommunications Review*, April 1974, pp. 24-33.

Public Broadcasting Service, Adult Learning Task Force. *Adult Learning Systems: A Report to the Public Broadcasting Service from the Adult Learning Task Force.* Washington, D.C.: Public Broadcasting Service (Adult Learning Task Force), April 1979.

Public Service Satellite Consortium. *Public Television Satellite System: Shared Use Guide.* Washington, D.C.: Corporation for Public Broadcasting, 1978.

Purdy, Leslie. *Students in Open Broadcast Television Courses.* (Unpublished), 1977.

Purdy, Leslie. *Telecourse Students: How Well Do They Learn?* Fountain Valley, Calif.: Coastline Community College (Office of Institutional Research), 1978.

Purdy, Leslie. "Telecourse Students: How Well Do They Learn?" *Focus, Newsletter on Media Instruction*, Vol. II, No. 2 (n.d., distributed December 1978), pp. 7-10.

Purdy, Leslie. *Who Takes National TV Courses?* Fountain Valley, Calif.: Coastline Community College, October 27, 1976. Presentation to the National Association of Educational Broadcasters, Chicago, Illinois, October 27, 1976. Mimeograph.

Purdy, Leslie, and Darrell Icenogle. *Classic Theatre: The Humanities in Drama, A Television Course for Credit* (Final Research Report). Costa Mesa, Calif.: Coast Community College District, and La Jolla, Calif.: University of California at San Diego (University Extension), 1976.

Purdy, Leslie, Vickie Hamilton, and Becky Thomas. *Precourse Research on Psychology Telecourse.* Fountain Valley, Calif.: Coastline Community College (Division of Telecourse Design), May 1978.

Quayle, Donald. *Telephone Survey of Stations.* Washington, D.C.: Public Broadcasting Service (PBS), August 29, 1978.

"QUBE: Interaction on the Cable." *Educational and Industrial Television*, April 1979, pp. 48-54.

Real, James. "Coast Community College: The Learning Society, California Style." *Change*, March 1978, pp. 22-27, 62.

Rein, Martin. "The Ascent of Man." *Community and Junior College Journal* May 1975, pp 8-9

Rhines, Christopher. *The Maryland College of the Air: A Focused Analysis* Baltimore, Md Essex Community College, 1977 Appendices (Representatives Interview Schedule, Faculty Survey Forms Student Survey Form)

Richardson, Penelope L. *Community College and Television Station Collaborations What Makes Them Work?* Washington, D C American Association of Community and Junior Colleges (Adult Learning and Public Broadcasting Project), July 1979

Rivers, William L., Wallace Thompson, and Michael J. Nyhan. *Aspen Handbook on the Media 1977-79 Edition* (Selective Guide to Research, Organizations and Publications in Communications) New York: Aspen Institute for Humanistic Studies, New York Praeger Publishers, Inc (Praeger Special Studies in U S Economic, Social, and Political Issues), 1977

Ryan, Steven. "Recruiting Students for Media Based Education." *Focus, Newsletter on Media Instruct* Vol II, No 2 (n d , distributed December 1978), pp

Schwenkmeyer, Barry. "College Flourishes on Instructional Tech Savvy Management, the Key" In *Communications Technologies in Higher Education 22 Profiles,* edited by Ruth Weinstock, pp 123-128 Washington, D C Communications Press, Inc , 1977

Selection Research, Inc. *University of Mid-America Viewership Study Final Report* Lincoln, Neb., Selection Research, Inc , March 10, 1978

Sell, G. Roger. *An Examination of Learning Center Effectiveness Working Paper #11* Lincoln, Neb: University of Mid-America (Office of Marketing and Information), September 1975

Sell, G. Roger. *Introductory Psychology (First Offering) Course Evaluation Report* Lincoln, Neb University of Mid-America (Office of Marketing and Information), August 1975 Appendices (Learner Responses to evaluation forms)

Sell, G. Roger. *A Preliminary Analysis of the Role, Expectations and Training Needs of the Learning Center Staff of the State University of Nebraska Working Paper #10* Lincoln, Neb University of Mid-America (Office of Marketing and Information), September 1975

Smith, Ralph Lee. "A State ETV Network What's in It for Higher Education?" In *Communications Technologies in Higher Education 22 Profiles* edited by Ruth Weinstock, pp 99-106 Washington, D C Communications Press, Inc , 1977

Smith, Ralph Lee. "A Telecommunications Primer for College Presidents Part I The Technologies Defined, Part II & III Implications and Issues, Part IV The Communications Act Rewrite" *Planning for Higher Education* December 1978, pp 7-11, 16-23, February 1979, pp 7-13, 21-26 (Educational Facilities Laboratory Profiles 25-28, 25 and 26 reprinted in Weinstock)

Smith, Richard W. "Educational Television Is Not Educating" *Change* December/January 1978/1979, pp 62-63, 78

Southern California Consortium for Community College Television. *Guidelines An Instructional Television Handbook for Instructors of Record Course Managers, Advisors and Faculty Facilitators* Downey, Calif Southern California Consortium for Community College Television (Office of the Los Angeles City Schools), n d

Stasheff, Edward, and Aryeh Lavi. *Instructional Television in Industry A Survey* Ann Arbor, Mich University of Michigan (Office of Research Administration), 1971

Station-College Executive Project in Adult Learning (SCEPAL). *Proposal* San Diego, University of California, San Diego (University Extension), October 1978

Stern, Rhoda Helen. "Applying a Concept of Marketing to the Utilization of Broadcast Telecourses in the City University of New York" New York, Dissertation submitted to Columbia University (Teachers College), 1979

Szilak, Dennis. "Interactive Tape Cassettes for Industrial Training." *Educational & Industrial Television,* April 1979, pp 43-44

"Telecourses" *Newsweek,* June 5, 1978, p 94

Thiagarajan, Sivasailam. "The Loneliness of the Long-Distance Learner" In *Learning Via Telecommunications Readings from "Audiovisual Instruction-3"* (reprinted from *Audio visual Instruction,* January 1978), pp 44-45 Washington, D C Association for Educational Communications & Technology (AECT), 1978.

University of Mid-America. *Characteristics of SUN Learners. First Five Course Offerings Statistical Summary No 4* Lincoln, Neb , University of Mid-America (Office of Marketing and Information), n d

University of Mid-America. *An Exploration into Reasons for Non-Enrollment in SUN Courses After Requesting Information about SUN Working Paper No 6* Lincoln, Neb University of Mid-America (Office of Marketing and Information), n d

University of Mid-America. *Factors Possibly Influencing an Individual's Decision to Enroll in a SUN Course Working Paper No. 7* Lincoln, Neb: University of Mid-America (Office of Marketing and Information), n d

University of Mid-America. *A Model Regional Open Learning System* (proposal to the National Institute of Education) Lincoln, Neb University of Mid-America, October 1974

University of Mid-America. *Preliminary Cost Effectiveness Considerations for UMA/SUN Working Paper #4* Lincoln, Neb University of Mid-America (Office of Marketing and Information), n d

University of Mid-America. *Rhetoric and Practice Needs Assessment in a Major Development Effort Working Paper No 5* Lincoln, Neb University of Mid-America (Office of Marketing and Information), n d

Video News, January 17, 1979

Walker, Arnold. "Something New from the SUNs" *Change,* April 1975, pp 20-21

Walsh, Patrick L., and Carol Williamson. *Instructional Staff Development Need, Response and Evaluation* Lincoln, Neb University of Mid-America, n d

Walton, Wesley W. *Productive Delivery Systems for Nontraditional Learning* Stanford, Stanford University Press (Center for Research and Development in Teaching), December 1975

Washington (State) Community College Television Consortium. *Miscellaneous Papers, Agendas, Minutes, Questionnaires, Evaluations.* Tacoma, Wash.: KCPQ-TV, Tacoma, Channel 13, 1977, 1978.

Washington, University of, School of Nursing. *Nursing Child Assessment Satellite Project. Final Report* (covers period of performance November 16, 1976–June 30, 1978). Seattle: University of Washington, School of Nursing, n.d.

Watson, Norman F., and Bernard J. Luskin. "A Credit Telecourse on the Classics." *Community and Junior College Journal*, May 1975, pp. 10–11.

Weinstock, Ruth. "Chicago TV College: Twenty Years Old and Still Innovating." In *Communications Technologies in Higher Education: 22 Profiles*, edited by Ruth Weinstock, pp. 1–6. Washington, D.C.: Communications Press, Inc., 1977.

Weinstock, Ruth, ed. *Communications Technologies in Higher Education: 22 Profiles.* Washington, D.C.: Communications Press, Inc., 1977.

Weinstock, Ruth. "Growing Up Wise: Shaped by Lessons of the Past, Technology Is Serving New Clients, New Needs." In *Communications Technologies in Higher Education: 22 Profiles*, edited by Ruth Weinstock, pp. 145–155. Washington, D.C.: Communications Press, Inc., 1977.

Witherspoon, John P. *State of the Art: A Study of Current Practices and Trends in Educational Uses of Public Radio and Television.* Washington, D.C.: Advisory Council of National Organizations, August 1, 1974.

WMFE-TV, Orlando, Florida. *Executive Summary of Channel 24/WMFE-TV Viewers and Non-viewers in Orange and Other Selected Counties, Orlando, Fla.* WMFE-TV, Orlando, Channel 24, February 1977. Study conducted by Barbour and Monroe Marketing Research for Public Television Station WMFE-TV, Orlando, Florida.

Wong, Mike D. *The Role of Technology in Non-Traditional Higher Education.* St. Louis, Mo.: Washington University (Center for Development Technology), August 1974. M.S. thesis, Program in Technology and Human Affairs, Washington University. Report No. (R) T-74/3.

Wood, Robert W., and Dorrance Larson. *A Survey of Non-Enrolled South Dakota Voters of the University of Mid-America Toward Selected Characteristics of the University of Mid-America.* Lincoln, Neb.: University of Mid-America, July 1978.

Yarrington, Roger, ed. *Using Mass Media for Learning.* Washington, D.C.: American Association of Community and Junior Colleges (AACJC), 1979.

Yeager, John L., and Diane J. Davis. *The Development of an Instructional Delivery System for External Studies in Higher Education.* Pittsburgh: Pittsburgh University (School of General Studies), February 1973. Paper presented at the American Educational Research Association Annual Meeting, New Orleans, Louisiana.

Zigerell, James J. "A Brief Historical Survey." In *Using Mass Media for Learning*, edited by Roger Yarrington, pp. 1–12. Washington, D.C.: American Association of Community and Junior Colleges, 1979.

Zigerell, James J., and Hymen M. Chusow. *Chicago's TV College: Fifth Report.* Chicago: City Colleges of Chicago, January 1974.

II. PERIODICALS

British Open University Foundation: An Occasional Newsletter
British Open University Foundation, Inc., 110 E. 59th St., New York, NY 10022
Newsletter
Published: Occasionally
Circulation: Unknown

California Public Broadcasting Commission Newsletter
California Public Broadcasting Commission, Sacramento, CA 95814
Newsletter
Published: Unknown
Circulation: Unknown

Educational and Industrial Television
C. S. Tepfer Publishing Company, Inc., P.O. Box 565, Ridgefield, CT 06877
Magazine
Published: Monthly
Circulation: 30,000
NOTE: Originally published as *Educational Television* until January 1972.

Focus, Newsletter on Media Instruction
Bergen Community College, Office of Media Programming, 400 Paramus Rd., Paramus, N.J. 07652
Newsletter
Published: Quarterly
Circulation: 6,000 to 7,000

GPN Newsletter
Great Plains National/Instructional Television, Lincoln, NE 68501
Newsletter
Published: Monthly, September through May
Circulation: 4,000

Monitor
Georgia Institute of Technology, Association for Media-Based Continuing Education for Engineers, Inc. (AMCEE), Atlanta, GA 30332
Newsletter
Published: Monthly
Circulation: Unknown
NOTE: First published August 1978, under the title *AMCEE Newsletter*.

NAEB Letter
National Association of Educational Broadcasters, 1346 Connecticut Ave., N.W., Washington, DC 20036
Newsletter
Published: Monthly
Circulation: 3,500

PTR (Public Telecommunications Review)
National Association of Educational Broadcasters, 1346 Connecticut Ave., N.W., Washington, DC 20036
Magazine
Published: Bimonthly
Circulation: 4,000
NOTE: Funds for *PTR* promotion and development are provided by a grant from the Corporation for Public Broadcasting.

SECA Memo
Southern Educational Communications Association (SECA), Columbia, SC 29250
Newsletter
Published Weekly
Circulation 250, distributed to administrative officials of SECA's member public television and radio organizations in 16 states

SECA Signal
Southern Educational Communications Association (SECA), Columbia, SC 29250
Newsletter
Published Monthly
Circulation 1,000, distributed to public broadcasting community, nationwide

Videodisc Design/Production Group News
KUON-TV, University of Nebraska, Lincoln, Videodisc Design/Production Group, PO Box 83111, Lincoln, NE 68501
Newsletter
Published Occasionally
Circulation Unknown

III. CATALOGS

Directory of Video Courseware and Programs, by Judith L. McDonald. Lincoln, Neb.: University of Mid America, July 1976.

Mass Media College Catalog: A Directory of Lower Division College Course Material in National Distribution for Use Via the Mass Media. Edited by Michael Coke Helmantoler. Washington, D.C.: American Association of Community and Junior Colleges, 1977.

1978 Recorded Visual Instruction. Lincoln, Neb.: Great Plains National ITV Library. Contains listings of video tapes, video cassettes, and 16mm films.

The (Televised Higher Education) Catalog (13th segment). Boulder, Colo.: Associated Western Universities, Inc., 1978. Published in 4 volumes.

ACKNOWLEDGMENTS

All the individuals listed in Appendix A, Part 4, generously provided information and shared insights during our interviews. Many spent additional time scheduling other meetings and searching for reports. There are several I would like to thank specially for these extra activities: Rheta Richardson and Miriam Gibson of the Mississippi Authority for Educational Television, Bob Leffler, recently of WFME-TV Orlando, Florida, Rodger Pool, Dotty Clark, and Ted Pohrte of the Dallas County Community College District, Kamala Anandam, Ned Glenn, and Jim Lyle of Miami-Dade Community College, Len Press and Grant Fox of Kentucky Educational Television, Bob Carter of the Kentucky Higher Education Council, Ted Christiansen of KAET-TV Tempe, Arizona, and Marlena Scordan of KCPQ-TV Tacoma, Washington.

The Executive Committee of the Station-College Project in Adult Learning created and maintained an open environment for the exploration of open learning. Dr. Bernard Luskin of Coastline Community College, Jack McBride of KUON-TV Lincoln, Nebraska, and Paul Steen of KPBS-TV San Diego, California all deserve thanks for this. Martin Chamberlain, Associate Vice Chancellor for Extended Studies at the University of California, San Diego, provided day-to-day support and advice as well. We were fortunate in our project officer from the Corporation for Public Broadcasting. Peter Dirr made a substantial contribution through his excellent critique of the paper as did Leslie Purdy, Senior Instructional Designer at Coastline Community College. Ronald Gross, the author of many studies, reports, articles, and books concerning open learning, shared his perceptions and insights about telecourses and adult education.

This report is only a part of a larger project and is inextricably woven into it. Tom Gripp, Dean of Telecourse Design at Coastline Community College and Project Director, was a colleague in the best sense of the word as the work progressed. In this, he was ably supported by his assistant, Mary Reeves. Here, at UCSD, Jean Humason filled a multitude of roles. She conducted the library research, ran the office, and prepared the bibliography for the project.

Dr. Penelope Richardson of the University of Southern California and Ms. Susan Graff of KPBS-TV San Diego are both the authors of sections of this report. Their work speaks for itself; what it does not say is that both have become friends and that both provided much more content to this work than there appears in their single sections.

None of these individuals, however, should be held responsible for the results of their labor. Except where explicitly acknowledged, the contents of this paper reflect my own perceptions and interpretations of telecourse use. With that caveat I would like to thank, once again, these people and all those associated with the SCEPAL Project.

Kiki Skagen Munshi

NOTE ON THE AUTHOR

Kiki Skagen Munshi is Program Development Coordinator for National Media Programs at University Extension, University of California at San Diego. In this position she has developed academic and instructional materials for both "wrap-around" telecourses and courses for television, including *The Age of Uncertainty*, *The Growing Years*, *Perspectives of Effective Parenting*, and *The Shakespeare Plays*, as well as a print-based course, *The World of Mystery Fiction*. During this time she has also taught telecourses in the local UCSD Extension program and is currently the instructor for CREATE, a computer-based course in Instructional Systems Design using the PLATO system and offered nationally in conjunction with Control Data Corporation.

INDEX