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ABSTRACT

Based on data collected over a period of 3 years (1987-1989) on the utilization of telecourses for college credit instruction, this report presents the over-all state of postsecondary uses of telecourses and examines current trends. It is noted that the study is limited to telecourses used to reach distant learners, and that personal computer software is used as part of the instructional resources in telecourse packages to present information, simulations, and other instructional activities. The following topics are covered in the report: (1) methods of data collection and the construction of a telecourse database; (2) institutional participation; (3) number of telecourses reported, telecourse use and enrollment types of telecourse producers, number of programs and hours in telecourses, and differences between institutions in telecourse use; (4) production and licensing of telecourses; (5) trends in telecourse enrollment; (6) telecommunications consortia as a resource for institutions; (7) use of supplementary instructional materials; (8) accreditation; (9) distribution of video programs, the importance of delivery systems, and institutional use of telecommunications systems; and (10) student/faculty interaction, telecourse grade levels, and general comments. Also included are a list of instructions and codes to be used by institutions in data reporting, and the two data input sheets used in the project. (DB)

TELECOURSE UTILIZATION SURVEY PROJECT

THIRD YEAR REPORT: FALL 1986 - SUMMER 1989

A Research Project of the

Instructional Telecommunications Consortium

American Association of Community and Junior Colleges

Funded by

The Annenberg/CPB Project

Ron Brey

Austin Community College

June 1990

The project director would like to acknowledge the Annenberg/CPB Project for its funding of this research project. He would also like to express his appreciation to the members of the Instructional Telecommunications Consortium for their support and encouragement. Additional thanks are due to the many people who have assisted the project over the past three years by entering data, writing computer programs, mailing reports, commenting on drafts and editing manuscripts.

All responsibility for the presentation of the data, its analysis and associated comments lies solely with the project director. This publication does not necessarily reflect the views of the Annenberg/CPB Project or the Instructional Telecommunications Consortium.

TABLE OF CONTENTS

PART 1

INTRODUCTION

During the summer of 1986 a grant was awarded by The Annenberg/CPB Project to the Instructional Telecommunications Consortium, an affiliate of the American Association of Community and Junior Colleges. The grant funded a three year project to collect data on the utilization of telecourses for college credit instruction. Only those telecourses used to reach distant learners were included in the project; video series used in conjunction with on-campus courses were not included.

A generally accepted definition of telecourses was made by Tom Gripp in 1977. It is still valid today, albeit with a slight modification:

> [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, 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.*

The modification needed in this definition is the inclusion of new instructional media. Personal computer software is now used as part of instructional resources in telecourse packages to present information, simulations and other instructional activities. Newer technologies, such as CD-ROM, may also become an important component of telecourses in the 1990s. The distinctions between prerecorded and live distance learning courses are also breaking down. An increasing number of institutions now use live components such as audio, audio/video and personal computer networks, in conjunction with prerecorded telecourses.

The report is based on data collected over a period of three years. This span of time was necessary in order to develop a longitudinal database that permitted comparisons to be made over a number of years. In addition to presenting the over-all state of postsecondary uses of telecourses, this report will also examine current trends.

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*Tom Gripp, "Telecourses Have Designs on You," THE Journal: Technological Horizons in Education 4(1977): pp. 18-19.

Data were first collected for the fall 1986 semester. In order to evaluate the effectiveness of the questionnaire and data collection procedures, participation was limited to members of the ITC. Input from these colleges resulted in revised data input sheets, refinements to the corresponding instructions, and the addition of responses and codes. Using mailing lists provided by several producers and distributors, all known telecourse-using institutions were invited to participate starting with the spring 1987 semester.

The instructions for completing the data input sheets and codes are revised annually. This is necessary due to factors such as the production of new telecourses and additional leasing organizations.

Project History

Why did the members of the ITC want to collect data on the uses of telecourses? There were several major reasons, all of which derive from the fact that there is no centralized source of data on telecourse utilization. Only institutions and organizations that license telecourses to colleges and universities possess enrollment and utilization data for telecourses. Licensing organizations do not have information on how their telecourses were viewed by students, the number of credit hours earned for the telecourse, or the nature of instructional support services offered students. This is due to colleges and consortia participating in preproduction licensing and long-term leases. Fifteen percent of the reported uses of telecourses in this report fit this category.

Preproduction licensing agreements are used by producers to raise money for the production of telecourses. These agreements allow a college to use a telecourse as often as it wants to without paying any additional fees. The college does not have to report any information about its use of the telecourse to the producer. Large numbers of colleges and universities may participate in preproduction licensing as a member of a consortium.

Telecourses are sometimes available for long-term leasing arrangements after they have been produced. This option is less expensive than leasing telecourses every semester. Many of the telecourses funded by the Annenberg/CPB Project may be obtained this way through the PBS Adult Learning Service. The Adult Learning Service receives no information about their use from institutions leasing these telecourses.

Furthermore, available data are generally not shared among licensing organizations and producers. Such information includes enrollment figures and names of institutions licensing telecourses.

For all these reasons, information on telecourse use tends to be consistently underreported. The present project is one attempt to correct that long-standing problem.

Data Collection and Validity

Institutions were invited to submit data to the project in a number of ways. Individual members of the ITC and institutions belonging to consortia which were ITC members were asked to participate. Several distributors made available the names of telecourse administrators at institutions that license their programs. People attending meetings and conventions where the project director made presentations about the project were also asked to participate.

Institutions are requested to submit data for their most recent semesters several times a year. During the past year an effort was made to obtain complete data for all semesters from each institution. This was required in order to build a more complete longitudinal database.

All data were reviewed by the project director before inclusion in the database. This necessitated assigning new codes when required, returning forms which were incomplete for more data, and assessing the nature and accuracy of the responses. The project director contacted institutions in an effort to clarify questionable responses.

The accuracy of the completed database is high. Data for each response was checked for plausibility and consistency, and was also compared to other sources of information about telecourses.

It should be noted that the data were not obtained from a random sample of colleges and universities in the United States. Only 199 institutions have participated in this project. Between 750 and 1,000 postsecondary institutions use telecourses at least periodically. Consequently, the observations contained in this report may not be completely representative for all institutions. However, the large number of participating institutions makes the findings useful and it can be assumed that the observations do in fact apply to most institutions throughout the United States that use telecourses.

The database was created and maintained using dBase III+ programs. It was converted to SPSS PC+ files to produce descriptive tables and graphs and to generate statistical analyses. While reading this report, please remember that the term "record" refers to data collected for each single reported use of a telecourse. (This information is contained in Data Input Sheet B; see the last page of this report.)

Some analyses used all 7,019 reported uses of telecourses, i.e., records, in the database. In other analyses, only those records for institutions providing data for the same

corresponding semesters over a number of years were used (e.g. fall 1986, fall 1987 and fall 1988). Keeping this distinction in mind will make the report's data easier to interpret. It will be mentioned in the course of the report when appropriate.

Statistical Analyses and Report Format

Each of the 7,019 records contains all the data provided in Data Input Sheets A and B. See the last two pages of this report. However, additional fields were added to each record:

- Each institution's headcount enrollment for 1986 and 1989 was added and the percentage change over three years was computed.

- Two fields concerning telecourse production were added to each record. One identifies the producer of the telecourse, specifying whether it was: (1) originally produced for national distribution as a telecourse; (2) commercially produced but not for a telecourse (e.g. a BBC series); or (3) produced by a college for its own use.

- Several new databases were created based on the data originally received from institutions. For example, one contains information summarizing an institution's telecourse data for each semester data was submitted.

Only tables and graphical representations of the data are included in the narrative section of the report. Statistical analyses and technical discussions are contained in notes at the end of the report.

Uses of the Database

The data collected by this project can aid institutions in planning telecourse activities. They can be useful, for example, when considering offering a particular telecourse because they can be used to determine how other institutions are using it. Similarly, the data show how institutions provide for student viewing of video programs, and lists of characteristics of telecourses produced by institutions for their own use.

Telecourse producers can use the data to determine what telecourses have already been produced, how often they have been used, and what the enrollment trends are. It can also help identify institutions and consortia that might be willing to participate in the production of further telecourses.

The data are also a valuable resource for graduate students. Several have already used them in writing articles or in writing a Masters thesis.

Although there are restrictions on direct access to the database, these should not affect its usefulness as a research tool. The primary restriction is that the database cannot be used to identify individual institutions.

Future of the Project

The following organizations have agreed to fund the research project for three more years:

Annenberg/CPB Project
Coast Community College District
Dallas County Community College District
Instructional Telecommunications Consortium
The Learning Channel
Miami-Dade Community College District
PBS Adult Learning Service
Southern California Consortium

A major goal of the project over the next three years is to expand the number of participating institutions. If your institution is not currently providing data, it may start reporting data with the previous semester. All of the necessary instructions, codes and forms are at the back of this report.

For More Information

Comments on this report would be appreciated. Please feel free to contact the project director. Write to Ron Brey, P.O. Box 161161, Austin, TX 78716 (telephone 512-483-7571). Mr. Brey is Director Non-Traditional Instruction, Austin Community College, Austin, Texas.

PART 2

INSTITUTIONS

Institutional Participation

The number of participating institutions varied from semester to semester. One hundred and ninety-nine institutions participated at least once. Table 1.1 summarizes the number of institutions that submitted data each semester, grouped according to semester length. A number of observations are made:

- In most reporting periods, 10 to 15 percent of the reporting institutions were on a four semester academic year calendar.

- The number of participating institutions was greatest for the 1987-1988 academic year. The decrease in the following year was due to one consortium and a number of individual institutions not reporting data in time to be included in this report.

Table 1.1

Institutional Participation

Semester		Quarter		Total
Fall 1986	60	Fall 1986	6	66
		Winter 1986	2	2
Spring 1987	131	Spring 1987	7	138
Summer 1987	73	Summer 1987	5	78
Fall 1987	131	Fall 1987	14	145
		Winter 1987	15	15
Spring 1988	127	Spring 1988	13	140
Summer 1988	68	Summer 1988	12	80
Fall 1988	99	Fall 1988	14	113
		Winter 1988	15	15
Spring 1989	88	Spring 1989	9	97
Summer 1989	57	Summer 1989	8	65

Other data indicate that 80 to 90 percent of institutions participating in the project offered only two year degrees. Consequently, upper level institutions are underrepresented in the database. Other reports indicate that at least one-third to almost one-half of institutions using telecourses are upper level institutions. Therefore, the underrepresentation of upper level institutions in this project limits some of the observations which can be made.

Twelve institutions reported that they no longer offer telecourses. For those providing a reason, it was usually due to insufficient enrollments or lack of institutional support.

PART 3

TELECOURSES

Number of Different Telecourses Reported

Over the three years of the project, an increasing number of different telecourses were offered by participating institutions. The total number of individual telecourses was 282. At 426 times, Understanding Human Behavior was the telecourse most frequently used. This comprises six percent of all reported uses of telecourses. However, many telecourses were only used a few times.

In each of the three years there was an increase in the average number of telecourses offered for the corresponding fall, spring and summer semesters (table 3.1). The increase is almost constant for all three semesters, and totals approximately 20 percent from the 1987 through the 1989 academic years.

Institutions consistently offer more telecourses during spring semesters. However, this may be a result of the general trend to be shown later in the report, that institutions are increasing telecourse utilization. The average number of courses offered during summer semesters is lower than either in the fall or spring. Institutions generally offer smaller telecourse programs in the summer; however, summer programs have grown over the past three years.

Table 3.1

Average Number of Telecourses Used Each Semester

Semester	Avg. Uses	Semester	Avg. Uses	Semester	Avg. Uses	Three Year Change
Fall 1986	6.7	Fall 1987	7.1	Fall 1988	8.2	+1.5
Spring 1987	7.1	Spring 1988	7.4	Spring 1989	8.5	+1.4
Summer 1987	5.8	Summer 1988	6.2	Summer 1989	7.1	+1.3

An analysis of the data for institutions on a quarter calendar shows a trend similar to that of institutions on a trimester system. However, the number of quarter semester institutions (five to fifteen per quarter) is too small to make conclusions as well-formulated statistically as those for trimester institutions.

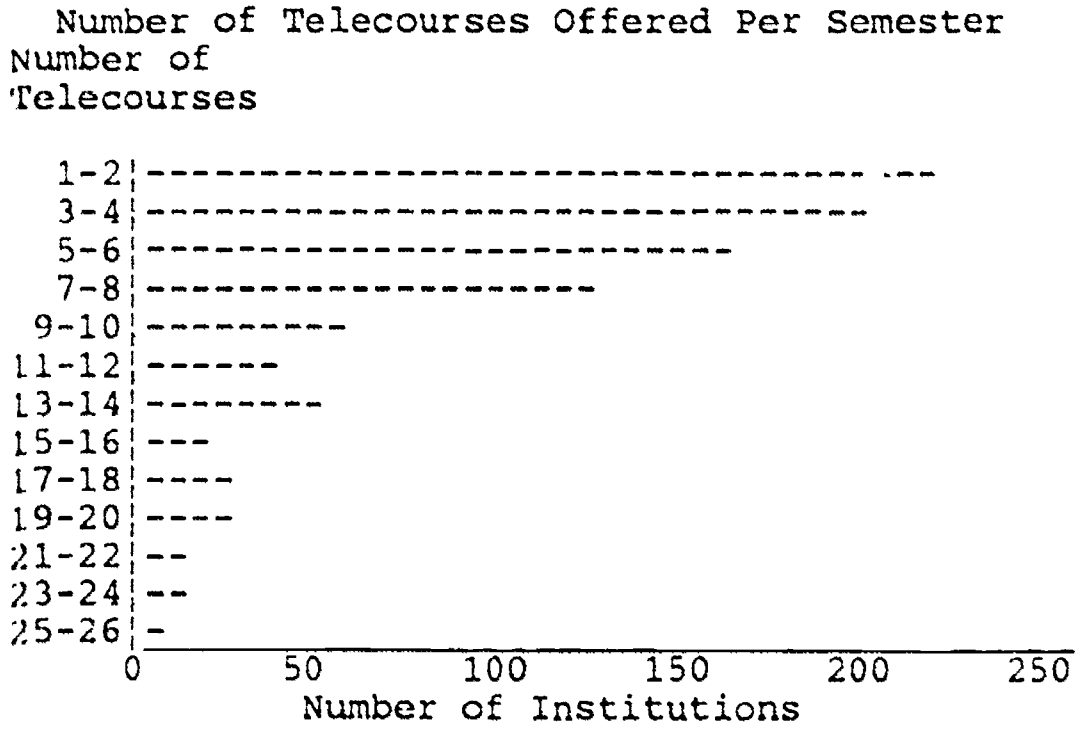
The 199 participating institutions have reported data for 972 semesters. Several important observations can be made by examining the distribution of the number of telecourses offered by each institution in a given semester (figure 3.1).

- Only one or two telecourses were offered during a semester twenty-two percent of the time. Thus, many institutions find it worthwhile to offer telecourses even though they offer very few a semester.

- On the average, an institution offers about seven telecourses per semester.

- There is a strong positive correlation between the total headcount enrollment of an institution (its 1986 headcount enrollment) and the total number of telecourses it offers during a semester. [note 1]

Figure 3.1



Telecourse Uses and Enrollments

Listed below (table 3.2) are the ten most often used telecourses and their average enrollments per use. For these ten telecourses there is no relationship between the frequency of use and average enrollment. However, a statistical analysis of all the data indicates that there is a positive and statistically significant relationship between how often a telecourse is used and its average enrollment. This relationship is weak which indicates that other factors correlate with the overall average telecourse enrollments. [note 2]

For all reported telecourses, the one with the highest average enrollment of 137, Communicating Through Literature, was used only twenty-eight times. Another telecourse was used only three times by a single institution and had an average enrollment of 131.

Table 3.2

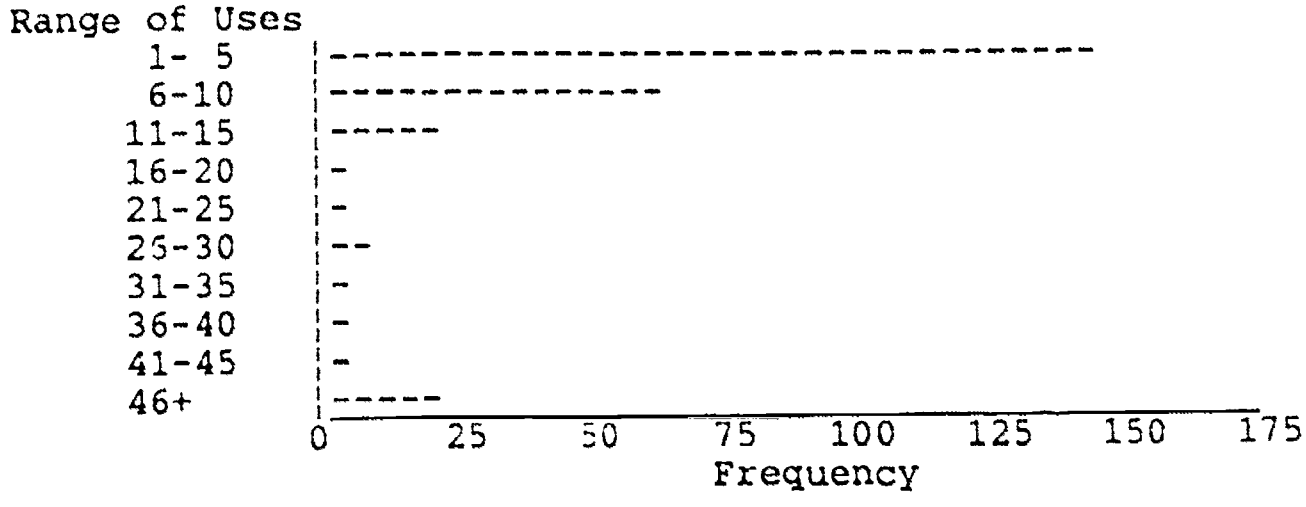
Most Often Used Telecourses and Their Average Enrollments

Number of Uses	Average Enrollment	Telecourse
426	57	Understanding Human Behavior
420	42	The Business of Management
406	38	The Business File
377	50	Focus On Society
337	38	The New Literacy
298	46	The Growing Years
261	48	Economics U$A
222	37	Faces of Culture
206	74	America The Second Century
201	33	Marketing

Most telecourses are used infrequently. Of the 281 different telecourses used by institutions during the reporting period, only twenty-seven were reported having been used more than fifty times. Why are there so many telecourses if they are used so infrequently? And who produces them? These and related questions will be answered in Part 4.

Figure 3.2

Reported Uses of Each Telecourse



Three Types of Telecourse Producers

Institutions have reported using telecourses produced by over 100 organizations. These producers can be separated into three main categories.

- A small number of organizations fund or produce television series that are to be used explicitly as a telecourse and marketed to other institutions. Coast Community College District, Dallas County Community College District, Miami-Dade Community College District and The Southern California Consortium, are examples of

such organizations. Others, such as The Annenberg/CPB Project, fund telecourses which are produced for use by others. Some of these are also distributed as prime time television series, such as Art of the Western World on PBS.

- A second source of telecourses is television series produced for broadcast but not originally meant for telecourse use. However, after production they are then adapted for use as a telecourse. These also include training programs produced for commercial training and business organizations.

- A third type of telecourse producer is a college or university that produces a telecourse for its own use and has no intention of marketing it to others.

In order to understand fully the production of telecourses, it is useful to determine the number of telecourses reported being used for each of the three types of telecourse producers, how many times each of these telecourses was used, and their average enrollment (table 3.3). Several observations can be drawn from these data.

- Although telecourse producers (type 1) account for only thirty-six percent of the telecourses, they account for eighty-three percent of the total reported uses of telecourses and ninety percent of the enrollments. This results from their higher average enrollment per use.

- Television series adapted for telecourse use (type 2) make up the fewest number of telecourses and are the least likely to be used. However, their average enrollment is higher than telecourses produced by colleges for their own use. This lower utilization is due in part to rights limitations for distribution by broadcast and cable television and limited releases, and not necessarily due to a lack of interest in offering these telecourses.

- Thirty-two institutions have produced telecourses for their own use (type 3). Although these telecourses have the lowest average enrollment, they make up the largest source of telecourses.

Table 3.3

Telecourses by Type of Producer

	Telecourses #	Telecourses %	Uses #	Uses %	Average Enrollment	Total Enrollment	
1. Telecourse producers	100	36%	5990	85%	49.6	297,345	90%
2. Television producers	43	15%	332	4%	35.8	11,884	4%
3. Colleges for own use	138	49%	697	10%	27.9	19,431	6%
Total:	281	100%	7,019	99%	46.8	328,660	100%

The percentage of the total number of reported uses and the enrollment in telecourses produced by institutions for their own use increased over the past three academic years (table 3.4). This change was small and several more years of data collection may be required before definitive conclusions can be reached. The proportion of telecourses produced by telecourse producers (type 1) was higher in the 1987 academic year as compared to the two following years. However, this was probably due to the somewhat different and larger number of institutions participating in the project after 1987.

Table 3.4

Comparison of Telecourses by Type of Producer Over Three Years

Type of Producer	Telecourses #	Telecourses %	Uses	Average Enrollment	Total Enrollment
1987 Academic Year					
Type 1	76	41	89%	48.1	93%
Type 2	30	16	4	30.7	3
Type 3	79	43	7	18.6	4
	185	100%	100%	46.0	100%
1988 Academic Year					
Type 1	91	39	84	48.2	90
Type 2	36	15	5	32.2	4
Type 3	106	45	11	25.6	6
Total:	233	99%	100%	45.0	100%
1989 Academic Year					
1	83	40	84	52.7	89
2	32	16	5	45.7	4
3	91	44	11	30.2	7
Total:	206	100%	100%	49.9	100%

Number of Telecourses Offered Each Semester

There are several institutional characteristics that may affect the number of telecourses offered each semester. Some of these also relate to the number of on-campus classes. Probably the most obvious one is size. Larger institutions tend to offer more telecourses than smaller institutions. There is in fact a strong, statistically significant relationship between the size of an institution and the number of telecourses it offers. [note 3]

Institutions were divided into four equal groups according to their headcount enrollment in the fall 1986 semester. This was done in order to make it easier to display the data in a meaningful way (table 3.5).

Table 3.5

Uses of Telecourses By Size of Institution

Enrollment	Type of Telecourse Producer 1	2	3	% of Total Uses
Fewer than 3,311	14%	9%	5%	13%
3,311 to 7,200	20	15	10	19
7,201 to 13,647	26	19	13	25
Over 13,647	39	56	71	43
	99%	99%	99%	100%

Number of Programs and Hours of Video in Telecourses

Two closely related telecourse characteristics are the number of individual programs and the total hours of video. In the 1970s and early 1980s the total number of video hours in a telecourse frequently was a hotly debated issue. Some colleges and state postsecondary agencies would not approve telecourses unless they had at least thirteen to fifteen hours of video (table 3.6). [Note 4 explains why these intervals were chosen.]

The number of programs in a telecourse varies greatly. The smallest is four and the greatest seventy-five. Eighty-six percent of all reported uses of telecourses had a number of programs equal to: eleven (4%), thirteen (3%), twenty (4%), twenty-six (24%), twenty-eight (10%) or thirty (41%). These particular values relate to the needs of two of the major types of telecourse producers. Due to the requirements of fall and spring prime time broadcast schedules, those series produced for PBS or BBC were generally eleven to thirteen one hour long programs (type 2). The series with twenty-six, twenty-eight and thirty programs were produced by college telecourse producers (type 1). They do not have the constraints of broadcast stations and prefer the one-half hour series for more programming and instructional flexibility.

Several observations can be made about the data summarized in table 3.6.

- The number of programs in telecourses varies from four to seventy-five.

- Telecourses are reported with forty-three different numbers of programs.

- There is a similar range for the hours of video from two to forty-eight (or thirty-two different numbers). Thus, many institutions do not rigidly define how many programs or hours of video a telecourse must have.

- The majority of all participating institutions reported using a telecourse with either fewer than ten or more than fifteen hours of video at least once. These numbers are outside the typical range for telecourses.

- There has been a clear tendency for series to become shorter than twenty-six to thirty half hour programs. These two accounted for eighty-four percent of all reported uses of telecourses for the 1987 academic year but only seventy-five percent in 1989. The percentage consistently decreased throughout all three years.

- There was also an increase in the use of telecourses with more hours of programming. Those of seventeen hours and more increased from one to three percent. This is another indication of greater flexibility among institutions.

In summary, there has been a clear tendency for telecourses to move away from a narrow range of number of programs and hours of video. This is important to keep in mind, because institutions participating in this project decide what they include under the definition of a telecourse.

Table 3.6

A. Number of Programs For All Uses of Telecourses

Number of Programs	1987	1988	1989
4-12	6%	8%	10%
13-20	9	12	14
21-28	34	36	37
28-32	50	41	38
33+	1	2	2
	100%	99%	101%

B. Hours of Video For All Uses of Telecourses

Hours of Video	1987	1988	1989
2- 6	2	3	3
7-10	10	13	16
11-14	37	39	39
15-16	50	42	39
17+	1	3	3
	100%	100%	100%

Differences Among Institutions

When reviewing the above data, there was no obvious explanation for the large number of reported uses of telecourses having twenty programs (within the range of thirteen to twenty). This is an unlikely number for either college telecourse producers or broadcast television stations. However, it is readily explainable by determining which institutions reported this data: almost all of them are on the four quarter academic year calendar. Table 3.7 reveals that there are significant differences between quarter and trimester calendar institutions in their use of telecourses. Sixty-three percent of the reported uses of telecourses by quarter calendar institutions had twenty or fewer programs compared to only fourteen percent for trimester institutions. A similar relationship exists for the hours of video -- fifty-nine percent versus nine percent.

It is clear that institutions on the quarter system are adapting telecourses to fit into their shorter length semesters. Telecourses which originally had twenty-six to thirty programs are shortened to twenty programs with 10 hours of video. The data also show that these institutions may be more likely to use telecourses which were originally produced with nine to ten hours of video.

Table 3.7

A. Number of Programs in Telecourses Used by Institutions on Trimester and Quarter Academic Calendars

Number of Programs	Semester (% of Uses)	Quarter (% of Uses)
4-12	4%	37%
13-20	10	26
21-28	38	21
28-32	47	14
33+	1	3
	100%	101%

B. Hours of Video in Telecourses Used by Institutions on Trimester and Quarter Academic Calendars

Hours of Video	Semester (% of Uses)	Quarter (% of Uses)
2- 6	2	8
7-10	7	51
11-14	41	21
15-16	47	16
17+	2	5
	99%	101%

One other factor affects the number of video hours in a telecourse. It relates to the initial market each of the three types of telecourse producers produces for. A college that produces a telecourse for its own use is more likely to have variable hours of video than those produced by an institution that intends to market it to other institutions. This is further evidence that colleges produce telecourses to fit their own unique needs.

Table 3.8

Hours of Video in a Telecourse and Type of Producer

Hours of Video	Telecourse Producer (type 1)	Broadcast Television (type 2)	College for Own Use (type 3)	
2-6	53%	12%	35%	100%
7-10	52	9	39	100%
11-14	94	4	2	100%
15-16	94	3	3	100%
17+	29	8	63	100%

Summary

During the 1990s there may be even greater variation in the number of programs and hours of video in telecourses. Producers are integrating other instructional media into their telecourses. The amount of video may decrease as the utilization of personal computers, CD-ROM and video disc players increases. Also, there may be a greater inclusion of live interaction between the instructor and students as well as among students. All of this would lead to telecourses being quite different from what they were in the 1970s.

PART 4

PRODUCTION AND LICENSING OF TELECOURSES

In the previous section there was a discussion of telecourse production by the three types of producers. In this part of the report, the types of telecourse producers will be examined more closely. In addition, the extent of institutional participation in the production of telecourses will be examined, and some of the major producing/funding organizations will be compared.

Institutional Size and Telecourse Producers

Postsecondary institutions have a rapidly increasing number of telecourses to choose from for their distant learning programs. Traditional telecourse producers (type 1), such as Coast Community College District, Dallas County Community College District, and the Southern California Consortium continue to expand their inventories. In the past decade, the Annenberg/CPB Project has become a major funding source for the production of fifteen telecourses. (Sixteen more are in production and will be released within the next three years.) Some of these telecourses were also prime time television series.

It is also likely that the number of institutions producing their own telecourses will remain high or even increase during the 1990s. In contrast, television series originally produced for broadcast television, instead of telecourse use (type 2), probably will not grow as a source of telecourses.

Are institutions with different characteristics more or less likely to use telecourses from these three sources? One possible relationship might be that larger institutions would be more likely than smaller ones to produce telecourses for their own use. This could be possible, because larger institutions are more likely to have the potential enrollments to justify the cost and risk of producing telecourses and the appropriate television studio, instructional designers and support staff.

Table 4.1 supports this hypothesis. These institutions are separated into four groups according to their 1986 headcount enrollment. Note that there is virtually no difference in the probability of institutions in the first three quartiles to obtain their telecourses from the three types of producers. However, institutions in the largest quartile are more than three times as likely to use a telecourse produced for their own use. [note 5]

Table 4.1

Use of Telecourses by Type of Producer and Size of Institution

Total Headcount Enrollment	Type of Telecourse Producer 1	2	3	
	---	---	---	
Less than 3,311	93%	3%	4%	100%
3,311 to 7,200	91	4	5	100%
7,201 to 13,647	91	4	5	100%
Over 13,647	77	6	16	99%

Institutional Participation in the Production of Telecourses

In thirteen percent of the reported uses of telecourses produced to be licensed to others (type 1), the reporting institution indicated that it had participated in the production or funding of the telecourse. This excludes the ten percent of those cases where institutions reported using a telecourse produced for its own use. Thus, for twenty-three percent of the uses of telecourses, the institution had either long-term or unlimited use of the telecourse and did not need to obtain a license for its use. This percentage would probably not be as high if all institutions were included in this project.

Fifty-one different institutions, primarily two year institutions belonging to consortia, have reported participating in the production of fifty-six different telecourses designed to be marketed to others. What might affect the probability that an institution will participate in the production of a telecourse?

Could one possible factor be to the size of the institution? Table 4.2 explores this possible relationship. The table was prepared as follows:

1. All uses (records) for telecourses produced for sale to others (types 1 and 2) were divided into two groups -- those where the college participated in the production (With Participation) and those where they did not (No Participation).

2. The number of reported uses of telecourses and their total enrollment by size and institutional participation in telecourse production were analyzed.

3. The values for each of the columns were then calculated.

The first column shows the percentage of total uses of telecourses where the college participated in its production, ranked in order of institutional size. Thirteen percent of the total telecourse uses for the smallest institutions, for example, were drawn from telecourses produced by the institutions. There

is a very clear positive relationship with the size of the institutions; as the institution gets larger, it is more likely to participate in the production of the telecourses it uses. [note 6] However, note that the next column shows a similar distribution; larger institutions are more likely to use telecourses that they did not help produce.

The next pair of columns shows the relationship between participation in telecourse production by institutional size and average enrollment per use. Except for the largest one-fourth of participating institutions, institutional participation in telecourse production has a close relationship to average enrollment. For the largest group, telecourses that institutions helped to produce had average enrollments almost twice as large as those for telecourses in which they did not participate. This is probably a result of the enormous savings which several large institutions incur by participating in the production of telecourses. There are other reasons for institutional participation in the production of a telecourse; for example, their opportunity to participate in the design of the telecourse.

It can be concluded that participation in the production of a telecourse does not have much, if any, impact on the number of telecourses an institution uses. Except for the larger institutions, it also does not relate to their average enrollments.

Table 4.2

Uses of Telecourses Where Institution Participated in Production
(Does not include uses [records] when telecourses were produced only for an institution's own use.)

	Percent of Uses		Average Enrollment	
Institutional Headcount Enrollment:	With Participation N=1,227*	No Participation N=5,095*	With Participation	No Participation
Less than 3,311	13%	15%	27	21
3,311 to 7,200	19	22	30	29
7,201 to 13,647	25	26	39	38
Over 13,647	43	37	116	61
Total:	100%	100%	78	42

*Number of records in column.

Major Telecourse Producers

The five major telecourse producers or funding agencies as reported for this research project are: The Annenberg/CPB Project (A/CPB) which funds a variety of telecourse producers, Coast Community College District (CCCD), Dallas County Community College District (DCCCD), Miami-Dade Community College District (M-DCCD) and the Southern California Consortium (SCC). The four

colleges are all part of The Telecourse People, an organization formed in 1978 to share the costs of marketing telecourses produced by its members and to support efforts to increase the institutional use of telecourses. The Annenberg/CPB Project was established in 1981 by a $150,000,000 grant from the Annenberg Foundation to the Corporation for Public Broadcasting. It has become a major source of funds for the production of telecourses.

Table 4.3 contains an overall comparison of these five organizations. Each column, from left to right, contains the following information:

1. The abbreviation for the telecourse producer

2. The number of courses it has produced that have been used by participating institutions

3. Overall average enrollment reported for the producer's telecourses

4. The percentage of the total enrollments in the database that was reported for each producer

5. The percentage of the total uses reported for each producer for all uses of telecourses contained in the database

6. The average number of video hours in each producer's series.

These four major telecourse producers and one funding agency have been responsible for the production or funding of sixty-nine different telecourses. (See note to table for an explanation of this number.) Their courses account for ninety percent of the total enrollment and eighty-two percent of the total reported uses of telecourses. Their percentage of the total enrollment is greater than that of total uses because the average enrollment in their telecourses was higher than those of all other telecourse producers. The higher average enrollment in DCCCD telecourses results from their national government and history telecourses. These telecourses tend to have relatively large enrollments because they are core courses at most institutions.

Table 4.3*

Comparison of Major Telecourse Producers

	Number of Courses	Average Enrollment	% of Total Enrollment	% of Total Uses	Average Hours
A/CPB	17	40	13%	16%	12.5
Coast	21	48	24	23	14.1
DCCCD	17	66	38	27	14.3
M-DCCD	8	49	3	2	14.3
SCC	8	41	12	14	13.3
	69		90%	82%	

* Two telecourses are included in the figures for two different producers: The New Literacy for the Annenberg/CPB Project and Southern California Consortium and The Write Course for the Annenberg/CPB Project and Dallas County Community College District. The Annenberg/CPB Project helped fund each telecourse: DCCCD and SCC produced them.

Table 4.4 lists the data for average enrollments and uses by academic year. This was done to determine possible trends in the relative share of the telecourse market held by these organizations. It might be expected that this would be the case because of the steady increase in the number of new telecourses being made available by some of these producers, particularly the Annenberg/CPB Project. Several slight trends may be emerging, although none of these observations is supported by statistical analysis.

- The percentage of all enrollments and all uses of telecourses funded by the Annenberg/CPB Project rises about one percent each year.

- Miami-Dade Community College's share has decreased. This may be explained by the fact that it did not release any new telecourses during the reporting period. Although still active in producing instructional materials, its emphasis has shifted to other media such as interactive video discs.

- It will take several more years to determine if these trends continue or others emerge. The impact of new telecourses and the discontinuation of older ones is a gradual process.

Table 4.4

Comparison of Average Enrollments and Uses Over Three Years

	Percent of All Uses Per Academic Year			Percent of All Enrollments Per Academic Year		
	1987	1988	1989	1987	1988	1989
A/CPB	15%	16%	16%	12%	13%	14%
Coast	25	22	24	25	23	24
DCCCD	28	27	27	39	39	38
M-DCCD	4	2	2	4	3	2
SCC	14	13	14	12	12	12
	86%	80%	83%	92%	90%	90%

Licensing Telecourses

Because institutions often face a variety of options, the process of obtaining institutional licenses for the use of telecourses is often complicated. (These options also have implications for the accuracy of the data, as is discussed elsewhere.) Licensing information is obtained by question K on survey Form B. The intent was to determine the identity of the organization from which the college or university received this right. It should be remembered that there may be several organizations between a telecourse producer and the institutions that use its telecourse. For example, it is not uncommon for a major telecourse producer to license its telecourse to the Adult Learning Service, which then licenses it to a state-wide or regional consortium, which in turn allows a college or university to use it. The data in this section reflect the last contractual relationship in this chain, e.g. the college licensing the telecourse from a consortium. The data displayed in Table 4.5 are a reflection of these relationships.

A number of observations may be made from the data in this table. Although the three major telecourse producers (Coast, Dallas, and SCC) accounted for only 17 percent of the telecourse licenses, they were the producers for 64 percent of the reported uses of telecourses. Thus in three-fourths of the time when institutions used their telecourses they obtained the license from an intermediate source -- not directly from the producer.

The Annenberg/CPB Project is not in the table because rights for its telecourses must be obtained from other sources, generally the Adult Learning Service. (In twenty-two of the reported uses of telecourses [.3% of the total] the institution actually indicated that it licensed its telecourse from A/CPB. The reporting institutions confused the funding agency with the licensing agency.)

Table 4.5

Telecourse Licensing Agencies

Telecourse Licensors	Percent of All Uses	Percent of All Enrollment	Average Enrollment
Adult Learning Service	14%	13%	41.8
Coast Community College	5	5	47.3
Dallas Co. Com. Col.	4	5	68.6
Southern Cal. Consort.	8	8	47.0
All Consortia*	30	26	40.1
Participated In Production (did not need to license)	25	33	61.6
Other sources	14	10	33.6
	100%	100%	

* The percentage of total uses and enrollments should be greater than listed here. In some cases institutions reported the producer rather than the licensing agency. Some of the reported uses in "Other sources" should also be included because it is not possible to determine the role of some of the smaller organizations listed as sources of licenses.

The role of the Adult Learning Service in the licensing and distribution process is not accurately reflected in the table. Many - perhaps most - of the reported uses of telecourses by consortia are actually obtained from the Adult Learning Service.

The relationships between telecourse producers and the licensing of their telecourses are not always clear. However, these legal arrangements are very important to the producers, distributors and postsecondary institutions. Multiple methods of obtaining telecourse rights undoubtedly increases the overall utilization of telecourses. This may be a mixed blessing for producers. While the total number of licenses increases, the producers must share gross income with other distributors. However, producers' total income may be increased by a larger number of licensing arrangements.

Over the past decade the role of the Adult Learning Service has been very important. Their licensing of telecourses and distribution of programs via satellite have made it easier for some institutions to have their telecourses broadcast on local PBS stations. This relationship has been augmented by the distribution of Annenberg/CPB Project telecourses by the Adult Learning Service. The role of the licensing agencies may change during the 1990s, due to the development of alternative telecommunications systems that can deliver video programs to students. They will create new licensing provisions to meet the changes in telecommunications technologies. These telecommunications systems will be discussed later in the report.

PART 5

ENROLLMENT TRENDS

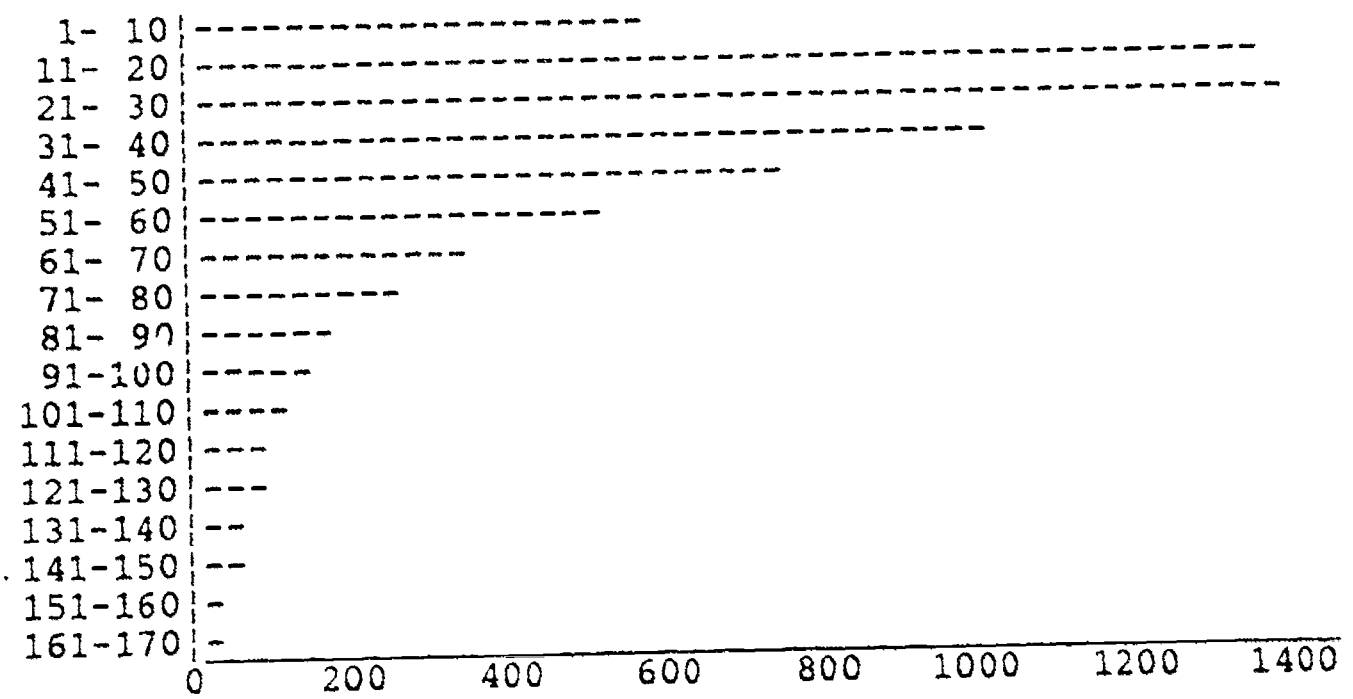
Introduction

During the discussion of the uses of telecourses (Part 3), it was shown that the average number of telecourses used by an institution each semester has increased over the past three years. This is an important finding for those using, producing and distributing telecourses. This section examines issues related to enrollments, which also measure the overall health of telecourses in postsecondary education.

Figure 5.1 shows the general pattern of enrollments for each use of a telecourse. The overall average is 46.8 enrollments per reported use of a telecourse. The median enrollment is 31. The median is less than the average because of the occurrence of a small number of telecourse uses with very high enrollments. The lowest telecourse enrollment was one and the highest 690. A little over one-half of all reported telecourse uses had an enrollment of between 10 and 40.

Figure 5.1

Enrollment Per Reported Telecourse Use



There are a number of factors that affect the average enrollment in a telecourse. The data indicate that the most important relationship by far is that between an institution's

total headcount enrollment and its enrollment in each telecourse -- the larger the institution, the larger its average telecourse enrollment. This relationship is to be expected.

Another factor relating to telecourse enrollment is the type of telecourse production -- whether it was produced as a telecourse for general distribution, as an adapted television series or by a college for its own use. As discussed in Part 3, a telecourse is likely to have a higher enrollment if it was originally produced as a telecourse for general distribution. [note 7]

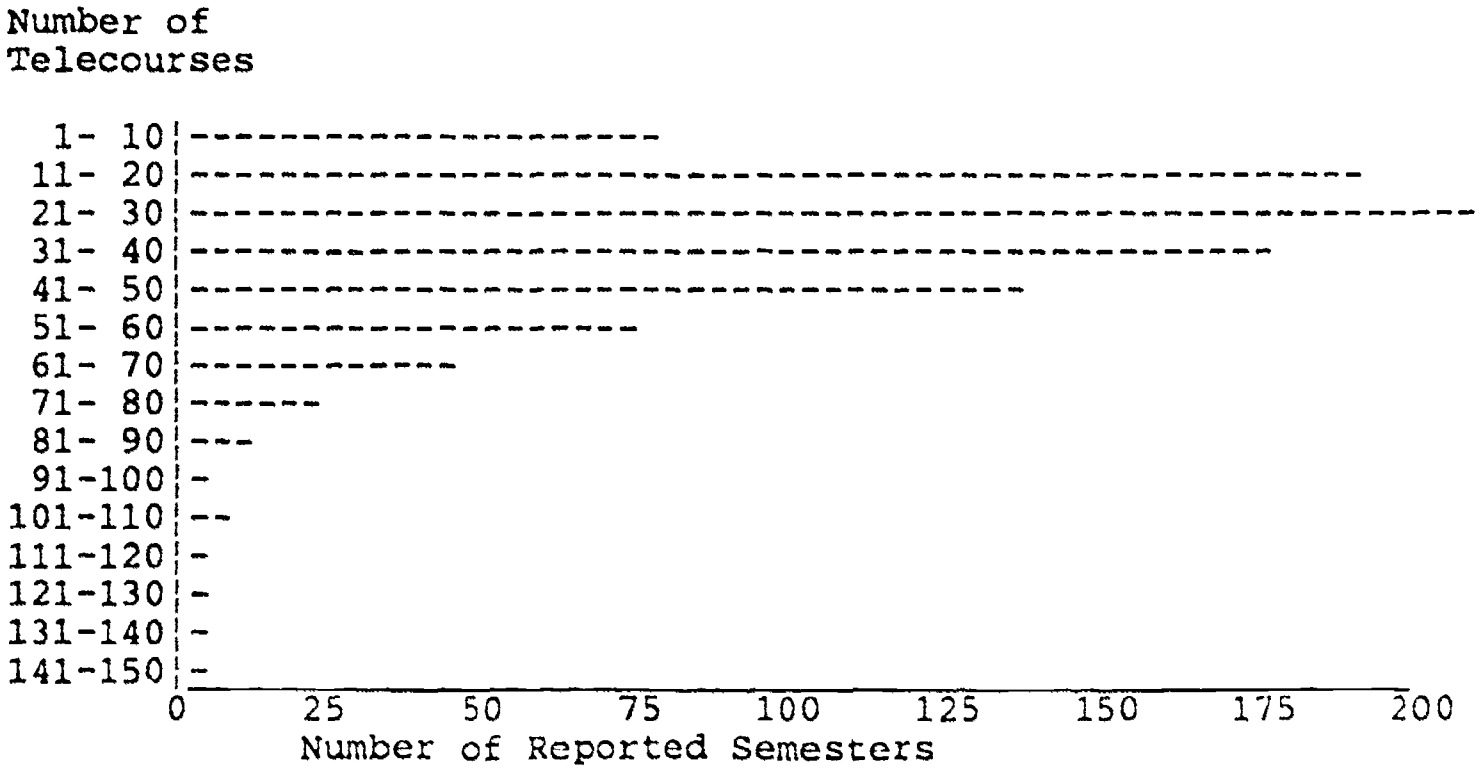
Institutional Comparisons

Institutions reported data for 972 different semesters. The average number of telecourses offered each semester was 7.2 per institution. An institution's average enrollment per telecourse was 41.1 (sum of the average enrollments for each institution divided by the number of institution.) This is different from the average enrollment in each use of a telecourse, which was 46.8 (the total enrollment divided by the total number of reported uses of telecourses.)

Figure 5.2 shows the distribution of the average telecourse enrollment per institution for the 972 semesters data were reported. The range for the most often reported average telecourse enrollment for an institution was between twenty-one and thirty students. An institution's average enrollment was between eleven and forty for fifty-eight percent of the semesters. This means that the telecourses of most institutions have, on the average, an enrollment equal to that of a typical on-campus class at a two year institution or a small lecture class at a large university.

Figure 5.2

Institutional Average Enrollment Per Semester



What might affect an institution's average telecourse enrollment each semester? The following analysis of change in average enrollment for each institution is based on data reported from seventy four institutions for the spring 1987 and spring 1989 semesters.

- The size (i.e., total headcount enrollment) of the institution clearly has the greatest relationship with average enrollment. This is to be expected because the local factors affecting total enrollment are also likely to affect telecourse enrollment.

- The data show that the number of telecourses offered in a semester is clearly related to the average enrollment of those telecourses; that is, the average telecourse enrollment increases as an institution offers more telecourses. However, the number of telecourses offered in a semester is also closely related to the institution's total headcount enrollment. (Data from another source indicate that this has not been the case in some large urban areas.) This also accounts for the relationship between the average enrollment and the number of telecourses. That is, an institution's size affects its average telecourse enrollment as well as the total number of telecourses it offers. Therefore, there is no significant relationship between average telecourse enrollment and the total number of telecourses offered during the semester.

- There is no significant relationship between the change in the average telecourse enrollment from 1987 to 1989 and either the corresponding change in the institution's total headcount enrollment, the change in the number of telecourses offered, or the institution's total headcount enrollment.

It may be surprising that there are no significant relationships for individual institutions between total telecourse enrollments and a large number of possible variables except for the most obvious one -- total headcount enrollment. Also, no significant relationships were found for any variable that explains the changes over three years in an institution's average telecourse enrollment per semester.

Many factors that affect telecourse enrollments are outside of an institution's control and are not measured by this research project. Similarly, there are institutional decisions that might affect telecourse enrollment trends and are not included in this project. They include the following.

- Additional funds spent on marketing or better marketing techniques can increase enrollment in existing telecourses.

- Organizational changes may generate new enthusiasm among a program's administrators and support staff, and hence increase enrollments. Declining enrollments might mean that an institution is de-emphasizing its telecourse program.

- Replacing an unpopular instructor with a popular one can impact enrollments.

- An "aging" telecourse may have declining enrollments despite an institution's best efforts. (Data from this research project does not, however, support this hypothesis.) The topic of the course may also become less timely.

- Telecourses in certain academic areas may become more or less popular due to economic and employment trends.

- Geographical and demographic characteristics of an institution's service area may affect enrollments: Is its population aging or getting younger? Is it urban or rural?

Changes in Enrollment for Individual Telecourses

In this section enrollment trends for several individual telecourses are examined. The analysis is based upon a comparison of 830 instances of telecourse reporting by an institution during the 1987 academic year and in the corresponding semester in the 1989 academic year.

Between the three academic years these institutions' average headcount enrollment increased 8.4% while the average telecourse enrollment increased 16.9%. The data show a positive significant relationship between an institution's overall change in enrollment and its change in telecourse enrollments. However, it is important to note that telecourse enrollments grew twice as fast as on-campus enrollments. (This is a significant relationship.)

For fifteen telecourses there were more than twenty instances where an enrollment comparison could be made between the two academic years. Table 5.1 compares the <u>average</u> change between 1987 and 1989 in these institutions' headcount enrollment and telecourse enrollments for the listed telecourse. The telecourses are grouped by general academic areas.

All telecourses listed in the table offered by business and related departments increased at a slower rate than the institutions' overall growth rate. Enrollments in telecourses offered by social and behavioral sciences and humanities departments increased faster than their institutions' on-campus enrollments. (The trend for the two courses in the sciences were mixed; they will be discussed separately.) There are several possible explanations for these data for business and social and behavioral sciences.

- The telecourse enrollment trends are similar to these institutions' on-campus enrollment trends for these departments.

- On-campus sections of social sciences courses are more likely to be filled than business courses. A department with declining enrollments may be more likely to have on-campus spaces available during registration than those where on-campus enrollments are growing.

- The markets for these types of telecourses are different. The potential market for business courses may have a lower annual renewal rate than the corresponding market for social science courses. Take the example of a business telecourse. When first introduced, it may appeal to a large number of people who will enroll in order to advance their careers or improve their general knowledge. These people may have less interest in a degree. In contrast, the social science telecourses may enroll a higher percentage of students who need them as part of their core courses in a regular associate or baccalaureate degree program. Thus, this market is renewed every year -- at all age levels -- as people begin or renew their efforts to obtain a degree. (The Telecourse Utilization Survey 1984 indicates that there is no significant age difference between students in business and social science telecourses.)

Table 5.1

Enrollment Changes for Selected Telecourses

	Change In Total Headcount*	Change In Telecourse Enrollment	Telecourse Enrollment Minus Headcount
Business Courses			
The Business File	+7.9%	+7.7%	-.2%
The Business of Management	10.2	.4	-9.8
Marketing	8.4	-6.4	-14.8
The New Literacy	12.5	2.9	-9.6
Social Sciences			
America: The Second Century	9.6	24.9	15.3
Economics U$A	17.2	74.0	56.8
Faces of Culture	17.7	7.0	-10.7
Focus On Society	7.3	31.9	24.6
Government Survey	3.8	28.7	24.9
The Growing Years	10.5	22.5	12.0
Understanding Human Behavior	11.8	20.1	8.3
Sciences			
Oceanus	20.7	.7	-20.0
Project Universe	21.5	95.2	73.7
Humanities/Composition			
Humanities Through the Arts	13.3	23.4	10.1
The Write Course	3.2	15.7	12.5

*Data from 1987 and 1990 Higher Education Directories, Higher Education Publications, Inc., Falls Church, VA.

Summary

Data for the number of telecourses offered each semester and the growth in average telecourse enrollments clearly indicate that telecourses are continuing to become a more important part of postsecondary college credit activities. However, it is also clear that there are no simple or obvious explanations for this trend. Decisions made by institutions as well as by individuals seem to be more important than general trends for the institution. It is also possible that changes in an institution's general environment may be important, but these cannot be determined by the data available at this time.

PART 6

CONSORTIA

Consortia Services

There is an increasing number of consortia with post-secondary institutional memberships that help members develop their telecourse and other distance learning programs. The services these consortia may provide include:

- Licensing telecourses for their members, generally at a discount compared to what an individual institution would pay
- Participating in pre-production buy-ins that might otherwise not be feasible for individual institutions
- Sharing the cost of airtime on a PBS station
- Developing a regional interconnected cable television network to show telecourse programs on educational access channels
- Duplicating tapes at lower cost
- Representing members before state educational agencies and boards, executive offices and the legislature
- Representing members before federal agencies (e.g. the Federal Communications Commission)
- Applying for grant funds, that would benefit all members
- Producing telecourses for use by members
- Providing information on the latest advances in distance learning technologies.

Consortia tend to base their memberships on one of three different types of geographical areas. An example of the first type is statewide consortia formed to meet the needs of institutions with similar resources, regulations, opportunities and problems. In other cases state-wide PBS networks license telecourses for broadcasting over this network for all its members. Finally, institutions may join together to obtain licensing discounts even though they are not served by a common distribution system.

Regional consortia vary considerably in the number of members and the extent of the geographical area that they cover. Sometimes a consortium's membership may be drawn from the broadcast area of a single PBS station. In other cases, it may encompass part of a state, such as the Southern California

Consortium. And some consortia may span state boundaries; the Northern Illinois Learning Resources Cooperative is a well known regional multistate consortium.

There are only a small number of national consortia involved in distant learning activities. These include the Instructional Telecommunications Consortium (ITC), a council of The American Association of Community and Junior Colleges, which does not license telecourses. The International University Consortium, located at the University of Maryland licenses telecourses.

Number of Memberships

Of the 199 institutions which reported data at least once, 145 (73%) belonged to at least one consortium sometime during the three years of the project. Twenty-six different consortia were reported for this project. Table 6.1 shows how membership changed over the three years of this study. The percentage of institutions not belonging to a consortium decreased from twenty-eight percent to only ten percent. This an impressive gain in such a short period of time. The average number of consortial memberships also increased each year from 1.2 in 1987, to 1.3 in 1988 and 1.4 in 1989. Thus, the importance of consortia for institutions offering telecourses continues to increase. (The data probably overrepresent consortia memberships because consortia are more likely to participate in this research project.)

Table 6.1

Institutional Memberships in Consortia

Academic Year	Percent of Institutions With Memberships of: #=0	1	2	3	4	5+
1987	28%	34%	33%	5%	1%	0%
1988	20	44	33	1	1	1
1989	10	46	41	3	0	0

Most Important Consortium

Each time an institution reports data for a semester it is requested to indicate its most important consortium membership that involves instructional telecommunications. The most often reported consortia were the Southern California Consortium (24%) and the Northern Illinois Learning Resources Cooperative (18%). These are two of the largest regional consortia in America. However, another reason why they were reported so often is that their administrative offices supported this project; their members were encouraged to report data.

The ITC is the most frequently reported as the most important national consortium; seven percent of reporting institutions named it as their most important consortium. Sixty-

two percent of the institutions participating in this project belong to a regional or statewide consortium and the ITC, with ITC membership through their consortia. Thus, institutions usually perceive regional consortia as more important than the national consortia on issues relating to the offering of telecourses. This is not surprising because the consortia provide basic telecourse services -- licensing, productions, etc. -- that are not provided by the ITC.

Table 6.2 indicates that size does not significantly affect whether an institution belongs to at least one consortium, with the sole exception of the largest group of institutions. The total institutional size may also relate to the total number of consortia memberships. This could be the result of a number of factors, the most important of which probably would be the cost of memberships. It may be difficult for smaller institutions to justify such memberships, especially after the first one; most of the financial benefits will have been achieved already. The data in Table 6.2 support this hypothesis. Sixteen percent of the smallest group of institutions reported two memberships whereas thirty-four percent of the next largest group reported two memberships.

Table 6.2

Size of Institution and Number of Consortia Memberships

Number of Memberships	Size of Institution By Headcount			
	Under 3311	3311-7200	7201-13,647	Over 13,647
0	28%	22%	25%	14%
1	56	42	35	42
2	16	34	37	38
3	0	2	2	6
4 or more	0	0	2	0

Summary

The data indicate that telecommunications consortia are an important resource for institutions. The areas they serve as well as the services they provide vary greatly. However, most institutions belong to more than one consortia and the average number of memberships increased during the study. The probability that an institution will belong to a consortium is proportional to its overall size. The total number of consortia memberships also increases with size.

PART 7

THE USE OF INSTRUCTIONAL MATERIALS

Print Materials by Telecourse Producers

Video programs are only part of the instructional materials that students use in a telecourse. They are usually accompanied by textbooks and study guides. Additional materials can include other print materials (articles or collection of readings), computer software and audio tapes.

Telecourse producers develop a telecourse with integrated print materials. These include a recommended textbook and an accompanying student study guide. Telecourse distributors who adapt a television series for telecourse use generally recommend a textbook and study guide. When an institution produces its own telecourse it generally adopts a textbook and produces supplemental materials to be used as a study guide.

Table 7.1 displays the sources of instructional materials tnat accompany telecourse video programs. Institutions did not use any of the recommended print materials in less than four percent of the uses of telecourses produced for national distribution. This is very clear evidence that institutions use the print materials developed in conjunction with the telecourses.

Type 2 telecourses (broadcast television series not originally conceived as a telecourse) report a lower rate of using recommended print materials. This is a consequence of the fact that either producers/distributors are less likely to have produced accompanying print materials, or because the recommended print materials may have been trade publications instead of textbooks.

In Table 7.1 the data in the column for telecourses produced for an institution's own use may be misleading. The question was not designed to be able to determine the instructional materials developed by institutions for telecourses produced for their own use. However, it is important to note that for the data here, producing institutions undertook the task of writing a study guide for their students over two-thirds of the time.

Table 7.1

Use of Print Materials Recommended by Telecourse Producer

	Type of Telecourse Producer		
	National Distribution (1)	Adapted TV Series (2)	For College's Own Use (3)
Did Not Recommend Print Materials	.5%	8.4%	24.0%
Used Recommended Textbook & Study Guide	92.3	77.1	66.4
Used Only Recommended Textbook	1.9	6.9	4.9
Used Only Recommended Study Guide	1.6	4.5	2.2
Used Recommended Reader	.1	.0	.1
Did Not Use Any Recommended Texts	3.7	3.0	2.4
	100.1%	99.9%	100.0%

Instructional Materials Produced by Telecourse Users

Whenever an institution decides to offer a telecourse, it has the option of developing its own instructional materials for student use. Table 7.2 shows how frequently different types of instructional materials were produced by participating institutions. It does not include items (such as syllabuses and exams) that would be prepared for any course. This table also shows the data for the three different types of telecourse producers.

For more than fifteen percent of the uses of telecourses institutions reported the production of local instructional materials for student use. Unfortunately, most were reported as "Other Materials" with no further descriptions. These are probably minor print materials, and may include course syllabuses and exams which were not to be reported for this question. Nevertheless, there must be a high level of satisfaction with the materials provided by telecourse producers, because for only 3.3 percent of the uses did an institution report the production of a major instructional item. [note 8]

Table 7.2

Instructional Materials Produced by Using Institutions for Telecourses: Percent of Uses of Telecourses

	Type of Telecourse		
	National Distribution (1)	Adapted TV Series (2)	For College's Own Use (3)
None	84.3%	63.9%	63.3%
Textbook/Study Guide	2.6	4.2	7.5
Computer Software	.1	0	.7
Video Programs	.3	6.3	4.3
Print & Video	.3	0	7.9
Other Materials	12.5	25.6	16.4
	100.1%	100.0%	100.1%

The results for video series adapted for telecourse use show a greater reliance on instructional materials produced by the institutions. This is to be expected because these series may not come with fully integrated packages of instructional materials as is the case with nationally produced telecourses. The data show that institutions were particularly likely to produce supplemental materials for several telecourses, including COSMOS, The Long Search, Mathematics for Modern Living, and Zarabanda.

The data for telecourses produced by institutions for their own use is misleading regarding the production of video supplements. The question was worded to elicit responses in those cases when institutions leased telecourses from other organizations. Therefore, it was difficult to respond to this question if they developed their own telecourses. The most probable response should have been that they did not produce video programs to supplement their telecourses. Understandably, this response was provided for 12.2 percent of these uses. What is important is that they had produced an important instructional resource for 32.5 percent of the reported uses of their telecourses. This indicates a major investment in addition to the production of the video programs.

Summary

When licensing telecourses, institutions have the option not to use the print materials developed by national telecourse producers because they are only licensing use of the video programs. For this group of telecourses the data indicate that institutions are very likely to accept the producer's

recommendations. However, it is clear that while institutions do use the recommended materials, they are willing also to produce additional instructional materials.

Seventy-five different institutions reported producing an important instructional resource for sixty-five different telecourses produced by a national producer. In many cases the decision to use a telecourse is much more complex than deciding to go with either the producer's entire package or reject all of it.

PART 8

ACCREDITATION

Telecourses and Institutional Credit and Catalogs

Data in this section were analyzed to determine whether telecourses receive the same credit and acceptance as their on-campus counterparts. Table 8.1 indicates that in only one tenth of one percent of the reported uses of telecourses (8 out of 7019) did a student receive fewer credits than if he or she had enrolled in the on-campus counterpart. Therefore, when institutions offer telecourses they must accommodate the institutions' usual credit hour systems.

This table also shows that some institutions are willing to offer telecourses for which there are no pre-existing equivalent courses. The adoption of a telecourse results in an addition to the course catalog. Sixteen percent of participating institutions reported having offered at least one telecourse that had not been previously in their catalogs.

Table 8.1

Does Telecourse Have the Same Credit as Its On-Campus Equivalent?

	Percent of Total Reported Uses of Telecourses
Same Credit Hours	97.1%
Has Fewer Hours	.1
Has More Hours	0
No On-Campus Equivalent	2.9
	100.1%

Restrictions On Students Taking Telecourses

In some cases colleges or universities may have restrictions placed on student telecourse enrollments. This could be due to either their own rules and regulations or those of a postsecondary state agency. Table 8.2 summarizes the data for this item. Usually students are not restricted in taking telecourses. One notable exception is that eight institutions limit the number of telecourse credit hours students may count toward a degree. Most of these uses occur among several Texas institutions due to a state regulation.

Table 8.2

Restrictions on Students Taking Telecourses

	Percent of Total Reported Uses of Telecourses
No Restrictions	87.8%
Telecourses Identified On Transcript	1.2
Limited Number of Telecourse Credit Hours for Degree	7.4
Special Assessment Before Taking Telecourse	1.1
No On-Campus Equivalent, Other	2.5
	100.0%

Summary

Telecourses have the same credit hours as their on-campus counterparts. Some institutions are also willing to offer telecourses even though no equivalent courses exist in their catalogs. Few institutions place restrictions on the ability of students to register in telecourses. The only exception is in Texas, where some institutions must limit the number of telecourse credit hours that a student may count toward a degree.

PART 9

DISTRIBUTION OF VIDEO PROGRAMS

Changes in Technologies

During the past two decades the number of institutions offering telecourses, the number of telecourses offered and the total enrollments in telecourses have grown steadily. One reason for this is that institutions now have greater access to technologies which allow students to view video programs. Twenty years ago, institutions relied almost exclusively on broadcast television stations (usually PBS stations). Sometimes missed programs could be viewed in college libraries, but this option was not always available. Consequently, students had little flexibility in viewing programs. This constraint may have adversely affected enrollments and completion rates.

The number of broadcast hours available on PBS stations for telecourses has often been limited. And as the number of telecourses being produced increased, particularly during the 1980s, this limitation became increasingly significant. But as this constraint affected a growing number of institutions, the increasing popularity of cable television and video tape recorders also created new delivery options.

During the process of awarding cable television franchises over the past two decades, cities often stipulated that channels be reserved for educational access organizations. Many colleges and universities have since started to show their telecourse programs on these channels. These educational access channels, which are carried on cable television systems, were also used to rebroadcast programs originally shown on PBS stations. Perhaps more importantly, the existence of these channels also allowed institutions to add telecourses which could not be shown on broadcast television due to limited PBS air time or to the fact that some locally produced telecourses were not appropriate for broadcast television.

The percentage of U.S. households owning VCRs has increased to the current level of approximately eighty percent. This gave students at home increased flexibility in telecourse viewing. Programs could be recorded when broadcast or shown on educational cable access channels and then viewed at more convenient times. The low cost of duplicating VCR tapes also made it possible for an increasing number of institutions to allow students to check tapes out of libraries, college bookstores, retail video stores or receive them by mail.

Four primary methods of viewing telecourse programs are examined in table 9.1. A number of other methods were also reported, but they were utilized too infrequently to be discussed. The four primary methods are as follows:

- "Broadcast television" usually refers to PBS stations. In some cases it may also refer to commercial television stations that provide air time to colleges or universities.

- "Cable television" refers to educational access channels for which institutions provide the programs to be cablecast. The term also refers to The Learning Channel, a national cable television network, which shows telecourse programs. It does not include those cases where cable companies carry PBS stations on their systems.

- "Library" refers to any situation where students must go to a site and view programs from a videotape.

- "Check-out" is any system that provides students with video tapes to be viewed at home.

Question R, Form B of the survey questionnaire asks the respondent to report up to three different methods by which students could view telecourse programs. "None" means that either no second or second and third viewing option was available to students. These options were to be ranked from most important to least important. The importance was to be based on the frequency with which each system was used by students. In most cases these data are probably the opinion of the person completing the form, and are not based on data collected from students.

The Relative Importance of Delivery Systems

Broadcast Television. The most important delivery system for student viewing of programs was broadcast television (table 9.1A). It was generally reported to be the most important system about twice often as either cable television or libraries. During the three academic years of this project broadcast television's importance as the most important system did not change when compared either to cable television or libraries. This is particularly important to remember because dramatic changes in other delivery systems occurred during this period of time, as will be seen.

Broadcast television ranks far below cable television and libraries for both the second (table 9.1B) and third (table 9.1C) most important systems. The frequency with which it was reported to be either the second or third most important delivery system also declined over the three year period. By summing the frequency of all three viewing options (table 9.1A, B and C), broadcast television ranks behind libraries and cable television. Therefore, two basic observations can be made on the importance of broadcast television: it remained unchanged as the most often used most important viewing method; however, it declined in total reported use because it was used less often as the second and third viewing options.

Table 9.1

Telecourse Programs Viewing Options

Percent of Total Uses of Telecourses for Each Academic Year

A. Most Important Viewing Method (question R1):

	Academic Year			Change in %
	1987	1988	1989	1987 - 1989
Broadcast TV	48.8%	46.4%	48.6%	-.2
Cable TV	20.8	25.8	23.3	+2.5
Library	24.9	26.5	24.1	-3.1
Check-out	.6	1.5	4.0	+3.4

B. Second Most Important Viewing Method (question R2):

	Academic Year			Change in %
	1987	1988	1989	1987 - 1989
Broadcast TV	13.9%	14.6%	10.7%	-3.2
Cable TV	37.1	37.3	40.5	+3.4
Library	26.6	26.2	28.4	+1.8
Check-out	.4	2.0	5.5	+5.1
None	21.5	19.0	14.7	-6.8

C. Third Most Important Viewing Method (question R3):

	Academic Year			Change in %
	1987	1988	1989	1987 - 1989
Broadcast TV	5.6%	3.9%	2.0%	-3.6
Cable TV	6.2	5.8	6.9	+.7
Library	15.8	19.4	31.1	+15.3
Check-out	.2	.8	6.7	+6.5
None	67.2	65.9	49.8	-17.4

Table 9.2

Total Percent of Times Delivery System Was Reported Being Used

	Academic Year			Change in %
	1987	1988	1989	1987 - 1989
Broadcast TV.	68.3%	64.9%	61.3%	-7.0
Cable TV.	64.1	68.9	70.7	+6.6
Library	67.3	72.1	83.6	+16.3
Check-out	1.2	4.3	16.2	+15.0
None	67.2	65.9	49.8	-17.4

Cable Television. For the most important delivery system, cable television ranks third. However, overall it is by far the second most often used delivery system (table 9.2). For each level of importance, its utilization increased slightly over three years.

Additional analyses of the data show that there is a clear relationship between broadcast and cable television systems as primary and secondary delivery systems: cable is the secondary viewing method in two-thirds of the uses of telecourses where broadcast television is the primary viewing method. Cable television was the only viewing option for students in less than two percent of all reported uses of telecourses. Thus, cable television is being used to provide repeat showings of programs.

Libraries. Viewing in libraries is ranked second for the most important method of student viewing of telecourse programs (table 9.1A). Library viewing has grown the most (sixteen percent) in terms of total viewing options over the past three years. Overall it is now the most frequently used viewing method, having eclipsed broadcast television (table 9.2). Although this viewing option is most often used supplement to broadcast and cable television, it was used as the only method of student viewing of the video programs in 11.5 percent of all reported uses of telecourses. One-fifth of the institutions offered at least one telecourse where students could view programming only in libraries.

Check-out. During the 1980s the home VCRs became a common consumer item. In most areas of the country eighty percent or more of homes have a VCR. This has given rise to several methods by which students can obtain video tapes of telecourse programs and watch them at home. Students are thus freed from limitations on viewing programs imposed by telecommunications systems that require program viewing to be at scheduled times.

There are three common methods to provide home viewing of video tapes: check-out from college libraries or bookstores, commercial video tape rental stores (either free or on a fee basis), or through the mail. All these are included under the category of "check-out."

From virtually no use in 1987, tape check-out became the most important delivery method for four percent of the reported uses of telecourses by 1989. Check-out has even a larger share of the second and third most important technologies. Overall, its total reported use rose dramatically from one percent in 1987 to sixteen percent in 1989 (table 9.2).

Total Viewing Options

The options available for viewing telecourse video programs have changed over the past three years. First, students have an increased number of viewing options. And second, three of the

four technologies increased their overall frequency of use. Between 1987 and 1989 the average number of viewing options per use of a telecourse increased from 2.1 to 2.4 -- a fourteen percent increase in two years. Institutions are still investing in additional delivery systems to provide better student access to telecourse video programs.

Table 9.3

Average Number Of Delivery Systems Used Per Telecourse Use

	1987	1988	1989	1989 - 1987
Average Number:	2.1	2.2	2.4	+.3

Institutional Uses of Telecommunications Systems

When developing a telecourse program, an institution must determine which options for viewing programs will be available to students, a process that necessarily includes identifying the cost of the available telecommunications resources. The availability of these resources varies widely throughout the country. Fifteen percent of the institutions report having used only one telecommunications technology, while only four percent used all four (see table 9.4). Because larger institutions are located in urban areas having more telecommunications resources, it might be expected that the number of systems used is related to the total headcount enrollment of the institution. This expectation is not upheld by the data.

Table 9.4

Number of Delivery Systems Used By Institutions

One	15%
Two	40
Three	41
Four	4
Total	100%

Thirty institutions (fifteen percent of the total) used only one method of student viewing of video programs. Two-thirds of these institutions relied on broadcast television. If an institution has a PBS station in its service area willing to broadcast telecourse programs, broadcast television can be very effective. The signal will reach most, if not all, people living in the institution's service area. The remainder of the institutions using one system relied on either library viewing (18%) or cable television (14%). (The number of different delivery systems used by an institution is not related to its total headcount enrollment. It may be related to other variables, such as the degree level of the institution, but it is not possible to conduct such analyses at this time.)

Enrollments

The types and number of delivery systems used by an institution may affect telecourse enrollments. Telecourses with the greatest availability (i.e., broadcast television and tape check-out) might have larger enrollments than those with limited access (i.e., cable television and libraries). However, other explanations relating to these variables could also cause enrollment differences, including total institutional enrollment, population size of the institutional service area, percentage of residences subscribing to cable television, number of library sites, ease of check-out, and the degree level of an institution.

The number of delivery systems available to an institution could be related to its total headcount enrollment -- larger institutions could be more likely to afford additional delivery systems and be located in larger urban areas. To partially control for size, the relationship between the number of delivery systems and average enrollment is examined after separating the institutions into four quartiles, based on their total headcount enrollment.

In general, average enrollments increase as the number of delivery systems increase for each quartile of institutions (table 9.5). It has been shown previously that there is a relationship between an institution's total enrollment and its average enrollment. This explains why the average telecourse enrollment increases for each number of delivery systems as the institutions are ranked in size from the smallest to the largest quartile. It is important to note that there is an increase in the average telecourse enrollment when comparing the same number of delivery systems within each quartile. Therefore, there seems to be a positive relationship between the average telecourse enrollment and the number of delivery systems used, although as explained previously, other factors may cause this relationship.

Table 9.5

Average Enrollment Per Telecourse Use by Number of Delivery Systems and Size of Institution

Enrollment	One System	Two Systems	Three Systems
First quartile	16.4	25.6	22.3
Second quartile	29.4	30.5	35.9
Third quartile	33.0	35.9	40.3
Fourth quartile	33.0	72.3	83.3

Future Possibilities

The rapid rise of video tape check-out reflects the success of the video tape consumer market. As a pervasive, inexpensive consumer item, institutions can use it as a method to take instructional materials directly to distant learners. Video tape has the advantages of low cost, portability, durability, single format, ease of use and total control over the viewing process. If there is any question about its much greater utilization over this three year period, it might be to ask why institutions waited so long to exploit this technology.

Are there any similar consumer electronic technologies which will become as ubiquitous during the 1990s as VCRs were during the 1980s? One possible item is the personal computer. It can now be found in about twenty percent of households, and the percentage is still increasing steadily. A decline in price has been accompanied by a dramatic increase in power. This combination has important implications for the development of distance learning programs. The ability of personal computers to access and manipulate text information, use graphics, conduct simulations and solve problems could become an important instructional component of distance learning programs. Already a growing number of institutions offer distance learning courses based on home computers and electronic mail networks.

Another possibility is the video disc. However, this is unlikely tc become a popular consumer item. It was a failure in the 1980s because it could not compete with video tape. Nevertheless, video discs will continue to become an increasingly important instructional resource in campus libraries and classrooms because of its power as an instructional medium.

CD-ROM is one technology just beginning to emerge that could become a common household item by the year 2000. The four and one-half inch compact disk which has taken the recorded music industry by storm is being used to store computer software and video. It has most of the capabilities of a standard video disc, and has the potential to become a successful consumer item. The implications for distance learning instruction programs would be dramatic if compact disks with these capabilities become a common household consumer item. However, several basic obstacles must be overcome: consumer music compact disc players will have to access video and use embedded computer software; manufacturers will have to agree on a single format, and the players and discs will have to become much more affordable.

PART 10

STUDENT/FACULTY INTERACTION

The amount of direct contact between students and instructors can vary greatly from course to course and institution to institution. In some cases, a telecourse may be offered as an extension course, and the student and instructor will never meet face to face. At the other extreme, there may be periodic contacts between the student and instructor, including required exams and laboratory sessions.

Question V of the survey instrument identifies telecommunications systems used for this interaction. (In most cases, U.S. mail and telephone calls also can be used; they are not measured by this question.) In seven percent of the reported uses of telecourses, students have access to an electronic form of communications with the instructor (table 10.1). The most common method is the use of an audio bridge for discussion sessions.

Table 10.1

Electronic Communications Between Students and Instructors

Type Of System	% of Total Uses
Audio conferences via bridge	4.9
Electronic Mail	.5
Personal computer diskettes	.2
Live discussion sessions over cable TV	.3
Multiple forms	1.5

Summary

The use of telecommunication systems is one of several methods by which interaction can be provided between students and instructors. Telephone, mail and on-campus meetings are undoubtedly by far the most important. However, during the 1990s institutions should gain greater access to telecommunication systems which would complement the use of telecourses for distance learners. Although these activities may not comprise a large percentage of the total uses of telecourses, they can be a valuable resource for particular courses or for meeting the unique needs of certain students.

PART 11

GRADE LEVEL OF TELECOURSE

Telecourses have been used in postsecondary degree programs from the associate through the Ph.D. levels. However, ninety-five percent are at the freshman and sophomore levels. There are several possible explanations, although the most probable one is that this is determined by the nature of curricula in U.S. postsecondary institutions. Most students take the same core courses during their freshman and sophomore years. There is much more diversification and specialization at the junior and senior levels. Thus, total enrollments in introductory courses are much higher at each institution as well as nationally. As has been previously shown, these telecourses have the highest average enrollment per use.

There is another explanation for the predominance of telecourses for freshman and sophomore courses. Lower division courses expose students to the basic skills, tools, and body of information in a discipline. The expository nature of these courses is very consistent with the use of recorded television. Upper division courses require students to apply skills and create information. Recorded television is generally not as appropriate for such courses.

Table 11.1

Grade Level of Telecourse Use

Grade Level	% of Total Uses
Freshman/sophomore	95.0%
Junior/senior	4.0
Masters	.7
Ph.D.	.1
Other	.3
Total:	100.1%

Type of Telecourse Producer

The telecourses produced by each of the three different types of telecourse producers may have a tendency to be used more often at certain grade levels. The data suggest (see table 11.2) that telecourses produced by the largest telecourse producers are the most likely to be used at the freshman and sophomore levels, whereas those produced by an institution for its own use are most likely to offered as upper level courses.

Table 11.2

Grade Level of Telecourse

Grade Level	Type of Telecourse Producer			
	National Distribution	Adapted TV Series	College's Own Use	Total
Freshman/sophomore	86.0%	4.3%	9.7%	100.0%
Junior/senior	77.1	12.1	10.7	99.9
Masters	67.3	20.4	12.2	99.9
Ph.D.	50.0	-	50.0	100.0
Other	21.1	5.2	73.7	100.0

It is also possible that telecourses by major producers are more likely to be used at certain grade levels than at others. This appears to be the case, but the differences are minor, except for the International University Consortium (IUC). The IUC is made up of upper level institutions. It distributes telecourses produced by member institutions as well as several produced by the British Open University. The telecourses it distributes are intended to fill a gap left by the major telecourse producers. However, the data for this table is probably affected by the underrepresentation of upper level institutions in the database.

Table 11.3

Degree Level of Telecourse Use By Producer

Producer/Funding	Grade Level				
	Freshman/ Sophomore	Junior/ Senior	Masters	Ph.D.	Other
Annenberg/CPB (funding)	93.4%	5.0%	1.3%	0	.5%
Coast C.C.D.	96.3	3.3	.2	0	0
Dallas C.C.D.	98.8	1.1	.1	0	0
So.Cal.Con.	96.9	2.6	.5	0	0
International U. Con.	25.8	71.0	0	3.2	0

Summary

The major producers have designed telecourses to be used in introductory lower level courses at two and four year institutions. The IUC is the only source of telecourses that are used regularly at the junior and senior grade levels.

There are several solutions to the limited number of telecourses for upper level courses. New sources of telecourses appropriate for upper level courses may develop during the 1990s. Telecommunications technologies, which lend themselves to custom made distant learning courses, either live or recorded, may play an even more important role than telecourses currently do in meeting the needs of upper level distant learners.

PART 12

COMMENTS

The data collected for the 1987, 1988 and 1989 academic years indicate that the offering of college credit telecourses increased in importance during the late 1980s. Two of the observations made in this summary report and further explained in the full report substantiate this trend.

*The average number of telecourses used each semester increased substantially.

*Institutions were willing to invest in new delivery systems in order to expand the potential market for telecourses, and to increase viewing options for students.

Many of the forces that made possible the growth of telecourse uses and enrollments in the 1980s will also play an important role in the 1990s.

*The key telecourse producers -- Coast Community College District, Dallas County Community College District and the Southern California Consortium -- will continue to produce new telecourses and revise existing ones.

*The licensing of telecourses through the PBS Adult Learning Service will grow, possibly with additional options and delivery methods.

*Existing viewing options for students, such as video tape check-out and cable television, will increase. New technologies such as compact discs, with video, audio and computer programs, may have a major impact on the production and distribution of programming.

*The need for distant learning opportunities for the U.S. work force will continue to increase as the necessity to continue an interrupted education or to improve job skills becomes even more important for the adult population.

The major concern telecourse producers and, ultimately users, may have in the 1990s is the availability of funds for the production of telecourses. The Annenberg/CPB Project had a major impact on the production and use of telecourses in the 1980s. However, as of this writing its funding has been terminated, and it is not known if the Project will find alternative sources of funding. Existing Project grants will make many additional telecourses available during the next three years. However, after this pipeline runs dry, there will be a significant decrease in the number and variety of new telecourses available for postsecondary use. Several questions to be answered are: Will the three major telecourse producers be able to expand their production of new telecourses to make up some of this loss? Will

the Project be able to find alternative funding? Will new funding sources be identified?

There is a certain irony in the fact that the increase in the number of nationally distributed telecourses may slow or stop at the precise moment in time when many institutions are realizing that their mission includes meeting the needs of distant learners. The challenge will be to expand existing funding options as well as to develop new ones. The self-interest of institutions that utilize telecourses, as well as that of telecourse producers, distributors and funding agencies, dictate that this challenge must be met as quickly as possible. It will be necessary for these organizations and institutions to develop closer ties and undertake additional cooperative activities in order to provide an increasing number of quality telecourses in the 1990s.

Future of the Telecourse Utilization Project

The following organizations have agreed to fund the Telecourse Utilization Survey Project for an additional three years: Annenberg/CPB Project, Coast Community College District, Dallas County Community College District, Miami-Dade Community College, The Learning Channel, PBS Adult Learning Service, and the Southern California Consortium. The Instructional Telecommunications Consortium/AACJC will provide support services in its national office at AACJC, Washington, D.C.

The project will continue to use the survey forms that were the basis for preparing this report. Each year the project also will conduct a special survey on emerging issues for institutions involved in the production, distribution and use of instructional telecommunications for college credit programs.

NOTES

1. Significant at .01 level with a correlation coefficient of .189.

2. Significant at .01 level with a correlation coefficient of .309.

3. Significant at .01 level with a correlation coefficient of .456

4. These intervals were chosen for the number programs and hours of video to reflect production patterns over the past decade. For example, type 2 telecourse productions were one hour long programs usually designed to fit into a broadcast schedule nine to thirteen weeks in length. Eleven to fourteen hours reflects the more recent series produced by type one producers and fifteen hours was their standard during the first part of the 1980s.

5. Although significant at the .01 level, there is a weak correlation between institutions' 1986 headcount enrollment and the type of telecourse producers.

6. Significant at .01 level with a correlation coefficient of .461.

7. Data for full time equivalent (FTE) enrollment is unavailable. This would be useful in comparing universities with two year institutions. Because two year institutions have a higher percentage of part-time students, the FTE and headcount enrollments for universities are closer than for two year institutions.

8. It would be interesting to analyze the data to determine whether institutions are significantly more likely to produce materials for certain telecourses rather than others. The data contain this information, but the requisite data preparation was too time-consuming to be included in this report. This may be addressed in a future study.

PART 13

INSTRUCTIONS AND CODES

There are two data input sheets. "Input Sheet A is completed each semester. It contains general information about the institution. It should be the cover sheet for the attached "B" sheets.

Data "Input Sheet B" must be completed for <u>each</u> <u>telecourse</u> offered during the semester which is being reported. All data must be entered the first time a course is reported. However, in subsequent semesters the data for item G and only those other items which have <u>changed</u>, such as enrollment (T) need be reported.

All data should be entered right justified; e.g., for a possible three digit response 10 is __ 1 0, not 1 0 __. Leading 0s are not necessary. For any response where there is not an appropriate code, write the response on the Data Input Sheet.

<u>NOTE:</u> The codes included here were revised in June, 1990. Do not use earlier codes.

A. <u>COLLEGE CODE</u>

Leave this part blank if you are reporting data for the first time. Your institution's code will be entered by the project director. It will be sent to you in the next mailing.

B. <u>SEMESTER/QUARTER</u>

For which semester is the data being reported? One separate Input Sheet "A" is needed for each semester. Code #8 is for flex-entry/flex exit courses which must begin and end within a single semester. Code #9 is for open enrollment programs (flex-entry/flex-exit) which do not fall within a single semester; i.e. student may register in October (fall semester) but complete the course in March (spring semester).

SEMESTER SYSTEM:
1=FALL
2=SPRING
3=SUMMER

QUARTER SYSTEM:
4=1ST QUARTER - fall
5=2ND - fall/winter
6=3RD - winter/spring
7=4TH - summer
8=Flex-entry/flex-exit within a single semester
9=Flex-entry/flex-exit courses which may be within two or more semesters

C. YEAR

Enter the last two digits of the calendar year for which data is being reported. If the semester is in two years, enter the year in which it began.

D. NUMBER OF CONSORTIA MEMBERSHIPS:

How many consortia or organizations does your institution belong to that are involved with the instructional uses of telecommunications? See item E below for a partial list of consortia and organizations.

E. MOST IMPORTANT CONSORTIUM:

For your institution, what is the name of the most important consortium that it belongs to which is concerned with issues involving instructional uses of telecommunications systems?

CODES:

3 Arkansas College Consortium
5 Bay Area Community College TV Consortium
10 Central Educational Network
15 Colorado Telecommunications Cooperative
20 Eastern Educational Consortium
25 Educational Teleconsortium of Michigan
30 Florida Community College TV Consortium
40 Higher Education Telecommunications Association of Oklahoma
50 Instructional Telecommunications Consortium/AACJC
51 International University Consortium
53 KAPSET (Kansas Association for Post Secondary Ed. TV.)
54 Kentucky Educational TV
55 Knowledge Network, University of British Columbia
57 KYCHE Telecommunications Consortium
58 Louisiana Educational Consortium
60 Maryland College of the Air
63 Nebraska Education Telecommunications Consortium of Higher Ed.
65 North Carolina Consortium for Instructional Telecommunications
67 Northern California Telecommunications Consortium
69 Northern Illinois Learning Resources Cooperative
74 Ohio Post Secondary Telecommunications Council
75 Oregon Community College Television Consortium
80 Southern California Consortium for Com. Col. TV
84 Southern Michigan Television Educational Consortium
88 Texas consortium for Educational Telecommunications
90 Washington State Telecommunications Consortium (Puget Sound)
92 West Virginia Higher Education Instructional TV
95 Wisconsin Board of Vocational, Technical, and Adult Education

F. HIGHEST DEGREE OFFERED BY THE INSTITUTION

1=TWO YEAR ACADEMIC ONLY
2=TWO YEAR ACADEMIC AND VOC./TECH.
3=TWO YEAR VOC./TECH. ONLY
4=BACH./MASTERS
5=MASTERS/PH.D. ONLY
6=PH.D. (ALL LEVELS)

G. TELECOURSE NAME:

This item requests the name given the telecourse by its producer, not the course name in college catalog. An example is the telecourse "Understanding Human Behavior." Enter the name on the blank line of the Data Input Sheet B if it is not on the list below.

TELECOURSE NAME	PRODUCER	CODE
A VOUS LA FRANCE	FILMS, INC	75
ACCOUNTING I	UNIVERSITY OF MID-AMERICA	100
ACCOUNTING II	UNIVERSITY OF MID-AMERICA	150
ACCOUNTING PRINCIPLES	KIRKWOOD COMMUNITY COLLEGE	200
ACCOUNTING, INTRODUCTION TO	PALOMAR COLLEGE	250
ADAMS CHRONICLES, THE	FILMS, INC./WGBH	260
ADULT YEARS	INTERNATIONAL U. CON.	270
ADVANCED LOTUS 1-2-3	ARTHUR YOUNG	271
ADVANCES IN INSTRUCTION I	COLORADO STATE U.	272
ADVANCES IN INSTRUCTION II	COLORADO STATE U.	273
AGE OF ENLIGHTENMENT	INTERNATIONAL U. CONSORTIUM	275
AFRICAN HISTORY AND CULTURE	WETA AND THE BBC	300
AFRICAN ART	SINCLAIR COM. COL.	310
AFRICANS, THE	ANNENBERG/CPB	325
AGAINST ALL ODDS	COMAP-A/CPB	340
ALGEBRA II	PORTLAND COM. COL.	345
AMERICA	MIAMI-DADE COMMUNITY COL.	350
AMERICA: THE SECOND CENTURY	DALLAS COUNTY COM. COL. D.	400
AMERICAN ADVENTURE	DALLAS COUNTY COM. COL. D.	425
AMERICAN BUSINESS HISTORY	U. OF MINNESOTA/U MID-AMER.	450
AMERICAN ECONOMY	WFVTAE/MATC	475
AMERICAN GOVERNMENT I	DALLAS COUNTY COM. COL. DIS.	490
AMERICAN GOVERNMENT II	DALLAS COUNTY COM. COL. DIS.	491
AMERICAN GOVERNMENT SURVEY	DALLAS COUNTY COM. COL. DIS.	500
AMERICAN SOUTH COMES OF AGE	SCETV	575
AMERICAN STORY BEG. TO 1877, THE	DALLAS COUNTY COM. COL. DIS.	600
AMERICAN SHORT STORY, THE	COAST COM. COL. DIST.	650
AN INVITATION TO FLY	SAN MATEO COLLEGE	675
APPLIED COMMUNICATIONS SKILLS	WFVTAE/MATC	725
APPLIED SKETCHING TECHNIQUES	COAST COM. COL. DIST.	750
ART AMERICA	NORTHERN VIRGINIA CC	800
ART OF BEING HUMAN, THE	MIAMI-DADE COMMUNITY COLLEGE	850
ART OF CLEAR THINKING, THE	PALOMAR COLLEGE	900
ART OF THE WESTERN WORLDD	WNET-A/CPB	925
ART OF THINKING, THE	USC COLL. OF CONT. ED	950
ASCENT OF MAN, THE	MIAMI-DADE COMMUNITY COL.	1000
ASTRONOMY	TIME-LIFE/FILMS INC.	1025
AVT LEARNING SYSTEM IN READING	MIAMI-DADE COMMUNITY COL.	1050
BASIC AC CIRCUITS	WIS. FOUND. FOR VOC./TECH.	1100
BASIC DC CIRCUITS	WIS. FOUND. FOR VOC./TECH.	1150
BASIC AUTOMOTIVE SYSTEMS	SINCLAIR COMMUNITY COLLEGE	1160
BASIC NURSING SKILLS	MIAMI-DADE COMMUNITY COL.	1300
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BEGINNING CONVERSATIONAL SPANISH	PALOMAR COLLEGE	1550
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BEGINNING SPANISH I	FLORIDA C.C. JACKSONVILLE	1604
BEGINNING SPANISH II	FLORIDA C.C. JACKSONVILLE	1605
BEGINNING TYPING	ACCESS	1610
BEGINNINGS:HANDICAPPED CHILDREN	MARYLAND ITV/MD STATE	1650
BEHAVIORAL REVOLUTION, THE	PENNSYLVANIA STATE U.	1700
BERNSTEIN CONDUCTS BEETHOVEN		1725
BEYOND WORDS	ARIZONA STATE U./KAET	1735
BIOLOGY	WILKES COLLEGE	1745
BIOLOGY, INTRODUCTION TO	PALOMAR COLLEGE	1750
BRAIN, MIND AND BEHAVIOR	WNET-ANNENBERG/CPB PROJECT	1800
BULLS, BEARS AND WALL STREET	BAY AREA TV CONSORTIUM	1850
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BUSINESS COMMUNICATIONS	KET AND TIME/LIFE	1875
BUSINESS COMMUNICATIONS	SINCLAIR COMMUNITY COLLEGE	1878
BUSINESS COMMUNICATIONS	COLUMBUS STATE COM. COL.	1879
BUSINESS ENGLISH I	LANE COMMUNITY COLLEGE	1890
BUSINESS FILE, THE (VIDEO)	DALLAS CO. COM. COL. DIST.	1900
BUSINESS LAW	PALOMAR COLLEGE	1950
BUSINESS LAW	SINCLAIR COMMUNITY COLLEGE	1960
BUSINESS LAW	MIAMI-DADE COM. COL. DIST.	2000
BUSINESS LAW I AND II	GOVERNORS STATE UNIVERSITY	2050
BUSINESS LAW I	NORTHERN VA. COM. COL.	2055
BUSINESS LAW II	NORTHERN VA. COM. COL.	2056
BUSINESS MATHEMATICS	PALOMAR COLLEGE	2100
BUSINESS OF MANAGEMENT, THE	SO. CAL. CONS. FOR COM. TV	2200
BUSINESS, INTRODUCTION TO	ACCESS AND ELECTRONIC PUB.	2250
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CHILD DEVELOPMENT	PALOMAR COLLEGE	2700
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CHILD DEVELOPMENT LAB	CCWC/ACCESS	2755
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CHINESE BRUSH PAINTING	COAST COMMUNITY COLLEGE	2765
CITIZENSHIP SKILLS	SADDLEBACK COM. COL.	2770
CIVILIZATION	BBC	2775
CLASSIC THEATRE: THE HUMANITIES IN DR	COAST COMM. COLLE., UCSD	2800
COLLEGE ALGEBRA	PALOMAR COLLEGE	2850
COLLEGE ALGEBRA	EAST CENTRAL COLLEGE	2855
COLLEGE MATEMATICS	FLORIDA C. C./JACKSONVILLE	2905
COLLEGE MODULAR TYPING	KIRKWOOD COMMUNITY COLLEGE	2910
COLLEGE SUCCESS SKILLS	COLUMBUS STATE COM. COL.	2925
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COMMUNICATIONS SKILLS I	WFVTAE/MATC	2959

COMMUNICATIONS SKILLS II	WFVTAE/MATC	2960
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COMPUTER & INFORMATION SYSTEMS	NORTHERN VA. COM. COL.	2995
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COMPUTER SYSTEMS ANALYSIS	SINCLAIR COM. COL.	3010
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9. Produced other instructional materials (write on data input sheet.)

K. LICENSED FROM:

What was the name of the entity from which the course was licensed or purchased? Enter "1" if your institution either produced the telecourse or bought into its production and does not have to license it. Enter the name of the licensing agency on the line on the Data Input Sheet if it is not on this list.

CODES:
1 College participated in production of course (owns rights).
30 ACCESS
35 Addison Wesley
37 ADFC
40 Adult Learning Service
45 AGEE
46 Agency for Instructional Television
47 Annenberg/CPB Project
48 Ambrose Video Publishing
51 Arizona State University
49 Arthur Young
50 Bay Area Community College TV Consortium
55 BBC
60 Beacon Films
75 Boeing Computer Services, Inc.
80 Catonsville Community College
100 Central Educational Network
105 Central Piedmont College
120 Chemekta Community College
125 Coast Community College District
130 Clark Community College
135 College of Dupage
138 College Video
139 Colorado State University
140 Coronet Films
141 Columbus State Community College
150 Dallas County Community College District
160 DeAnza College
190 East Central College
200 Eastern Educational Consortium

240 Educational Communications Board/Wisconsin
250 Educational Teleconsortium of Michigan
285 Films for the Humanities
290 Films Incorporated
299 Florida Community College of Jacksonville
300 Florida Community College TV Consortium
340 Governors State University
350 Great Plains National
400 Higher Education Telecommunications Association of Oklahoma
450 Indiana University
500 International University Consortium
515 Iowa Public Television
525 Kansas Association for Post Secondary Educational TV (KAPSET)
KCSM-TV, San Mateo Community College -- see 750
530 Kentucky Educational TV (KET)
540 Kirkwood Community College
550 KYCHE Telecommunications Consortium
555 Lane Community College
560 Lionhart Video
575 Louisiana Public Broadcasting
580 Majic Lantern
590 Magna Systems
600 Maryland College of the Air
605 Maryland Public Television
608 Mercer County Community College
610 Miami-Dade Community College District
611 Milwaukee Technical College
612 Miles College
613 Mississippi Educational Television
617 Montanans for Quality Television - MQTV
620 National Audio Visual Center
622 National Film Board of Canada
623 National Institute of Justice
625 National Narrowcast Service
640 New Jersey Community College Telecommunications Consortium
650 University of North Carolina Center for Public Television
669 Northern California Telecommunications Consortium
670 Northern Virginia Community College
690 Northern Illinois Learning Resources Cooperative
700 Pennnsacola Community College
702 Pennsylvania State University
725 Portland Community College
730 Public Media
734 Rio Salado Community College
735 Rochester Institute of Technology
740 Saddleback Community College
750 San Mateo College
760 Sinclair Community College
775 South Carolina Educational TV
800 Southern California Consortium for Com. Col. TV
815 TELSTAR
820 Texas Educational Telecommunications Consortium
825 Time Life
850 TLC (Television Licensing Center)
900 TV Ontario
915 U.S. Office of Education

925 University of Delaware
924 University of Kentucky
926 University of Mid-America
927 University of Minnesota
928 University of Wisconsin
929 Valencia Community College
930 Washington State Telecommunications Consortium (Puget Sound)
945 West Virginia Educational Instructional Television
946 Western Illinois University
947 WETA
948 Wilkes College
950 Wisconsin Board of Vocational, Technical, & Adult Education
954 WGBH
955 WNET
960 WQLN/Public Communications
999 PROGRAMS ACQUIRED FROM A NUMBER OF SOURCES

L. NUMBER OF PROGRAMS IN THE TELECOURSE:

Enter the actual number of separate instructional video programs in the telecourse which are delivered by telecommunications, e.g. 26 for a telecourse having 26 one-half video programs.

M. HOURS OF PROGRAMMING IN TELECOURSE:

Enter the total number of hours of instruction delivered by telecommunications systems for this course. Round number down to whole number if less than .50, round up to whole number if .50 or larger.

N. INSTITUTIONAL DEPARTMENT NAME OFFERING TELECOURSE:

Choose the department from the list below that offered credit for the telecourse. For example, if "Understanding Human Behavior" is offered as an introductory course in the psychology department, choose "Psychology" department. Enter the name of the department on the Data Input Sheet if it is not on the list below.

INSTRUCTIONAL DEPARTMENT	CODE
ACCOUNTING	10
ADMINISTRATIVE SCIENCE	15
ADVERTISING	20
AEROSPACE ENGINEERING AND ENGINEERING MECHANICS	70
AGRICULTURE	25
AIR CONDITIONING AND REFRIGERATION	30
AIR FORCE SCIENCE	40
ALLIED HEALTH SCIENCE	50
ANTHROPOLOGY	60
ART	80
ASTRONOMY	90
AUTOMATIVE TECHNOLOGY	100
AVIATION PILOT TRAINING	105
BANKING	110

BEHAVIORAL SCIENCE	115
BIOLOGY	120
BOTANY	130
BUILDING TRADES	140
BUSINESS	145
BUSINESS MANAGEMENT	150
BUSINESS OWNERSHIP	151
BUSINESS PERSONAL COMPUTERS	152
CHEMICAL ENGINEERING	160
CHEMISTRY	170
CHILD DEVELOPMENT	180
CIVIL ENGINEERING	190
CLASSICS	200
COMMERCIAL ART	210
COMMUNICATIONS	215
COMMUNICATIONS MEDIA	212
COMPUTER BUSINESS APPLICATIONS	214
COMPUTER INFORMATION SYSTEMS	220
COMPUTER SCIENCE	230
CREDIT UNION MANAGEMENT	240
CRIMINAL JUSTICE	250
CURRICULUM AND INSTRUCTION	260
DANCE	270
DATA PROCESSING	275
DRAMA	280
EARLY CHILDHOOD STUDIES	285
ECONOMICS	290
EDUCATIONAL PSYCHOLOGY	300
EDUCATION	305
EDUCATION FOUNDATION	306
ELECTRICAL AND COMPUTER ENGINEERING	310
ELECTRONICS	315
ENGINEERING DESIGN GRAPHICS	320
ENGLISH	330
FINANCE	340
FOREIGN LANGUAGE	345
FRENCH	350
FRENCH AND ITALIAN	360
GENERAL BUSINESS	370
GENERAL EDUCATION	373
GEOGRAPHY	380
GEOLOGICAL SCIENCES	390
GEOLOGY	400
GERMAN	410
GERMANIC CIVILIZATION	420
GOVERNMENT	430
GRADUATE EDUCATION	435
HEALTH AND PHYSICAL EDUCATION	440
HEALTH SCIENCE	445
HISTORY	450
HOME ECONOMICS	460
HORTICULTURE	465
HUMAN DEVELOPMENT	470
HUMAN SERVICES	480
HUMANITIES	490

INSTRUCTIONAL SUPPORT SERVICES	495
INSURANCE	500
INTERCULTURAL STUDIES	503
ITALIAN	505
JOURNALISM	510
LAND SURVEYING TECHNOLOGY	520
LAW	525
LIBRARY SCIENCE	527
LITERATURE	528
LONG-TERM HEALTH CARE ADMINISTRATION	530
MANAGEMENT	540
MARINE STUDIES	550
MARKETING	560
MARKETING ADMINISTRATION	570
MATHEMATICS	580
MECHANICAL ENGINEERING	590
MEDICAL LABORATORY TECHNOLOGY	600
MICROBIOLOGY	610
MID-MANAGEMENT	620
MILITARY SCIENCE	630
MUSIC	640
NATURAL SCIENCE	645
NAVAL SCIENCE	650
NURSING	660
NUTRITION	670
OCCUPATIONAL THERAPY ASSISTANT	680
OCEANOGRAPHY	685
OFFICE SYSTEMS TECHNOLOGY	690
ORIENTAL AND AFRICAN LANGUAGES AND LITERATURES	700
PARALLEL STUDIES	710
PARAMEDIC TECHNOLOGY	720
PETROLEUM ENGINEERING	730
PHARMACY	740
PHILOSOPHY	750
PHOTOGRAPHIC TECHNOLOGY	760
PHYSICAL AND HEALTH EDUCATION	770
PHYSICAL SCIENCE	780
PHYSICAL THERAPIST ASSISTANT	790
PHYSICS	810
POLITICAL SCIENCE	800
PRINTING (OFFSET)	820
PROPERTY TAX APPRAISAL	830
PSYCHOLOGY	840
PUBLIC AFFAIRS	850
QUALITY ASSURANCE TECHNOLOGY	860
RADIO-TELEVISION-FILM	870
RADIOLOGIC TECHNOLOGY	880
REAL ESTATE	890
RELIGION	900
SCIENCE	912
SLAVIC LANGUAGES	910
SOCIAL SCIENCE	915
SOCIAL WORK	920
SOCIOLOGY	930
SPANISH AND PORTUGUESE	940

SPANISH	950
SPECIAL EDUCATION	960
SPEECH	970
SURGICAL TECHNOLOGY	980
TECHNICAL COMMUNICATIONS	990
TECHNOLOGY	991
VOCATIONAL NURSING	993
WELDING	996
WOMEN'S STUDIES	997
ZOOLOGY	998
UNIDENTIFIED/INTERDISCIPLINARY	999

O. NUMBER OF CREDIT HOURS:

Enter the number of college credit hours that your institution awarded for this telecourse. If the number is a fraction round it to the nearest whole number.

P. DOES THE TELECOURSE CARRY THE SAME CREDIT AS ITS ON-CAMPUS COUNTERPART?

1=Has the same number of credit hours
2=Has fewer credit hours
3=Has more credit hours
9=No on-campus counterpart

Q. THE SAME ACCEPTANCE AS ON-CAMPUS COUNTERPART:

Does your college treat this telecourse differently in any of the ways listed below? Sometimes a college may report these courses differently either on transcripts or limit the number of hours taken by telecommunications systems.

CODES:

0= No difference.
1= This mode of instruction is identified on transcript.
2= Students are limited in the number of credit hours delivered by this mode of instruction that can count toward a degree plan.
3= students must take a special assessment test before enrolling in courses offered by this mode of instruction.
4= 1 and 2 above
5= 2 and 3 above
6= 1,2 and 3 above
9= No on-campus counterpart or "other" response -- please write on the Data Input Sheet or attachment.

R. TELECOMMUNICATION SYSTEMS USED:

List the telecommunication system(s) used to deliver instruction to the student for this course. How was the television program delivered to the site where the student viewed the programs? Note that for home viewing use broadcast

television, cable television, etc. even if students viewed the programs after having recorded it at home on a VCR. Although the student viewed the program from a videotape, it was delivered to the home by broadcast tv, etc.

The ability of students to obtain videotapes and take them home is becoming increasingly important. Code 97 should be used if the student was able to borrow the videotapes and take them home or if they were mailed, etc. Code 95 should be listed if the student went to a LRC or library and viewed the programs there.

Note that up to four different telecommunications systems can be reported for each course. List first ("R1") the one that you believed to be the most important (most often used) source for student viewing. "R2" is the second most important, etc. It is realized that you may not have data on student viewing patterns at your institution, so please use your best judgment. Computer generated Input Sheet Bs will not have a space for an R4 response. Please write below R3.

CODES:

10 Broadcast television station (PBS and commercial stations)

20 Compact disc

28 I-Net or B-Net(institutional cable tv network with access limited to government, business and other major sites.)

30 ITFS used to deliver programming to a direct viewing site, e.g. library or viewing room. This code is not appropriate if ITFS is being used to deliver programming to cable companies - use code 80.

60 Point-to-point microwave (same situation as ITFS)

Subscriber cable television systems - use numbers 80-89:

80 Educational access channel
85 The Learning Channel (TLC)
86 Mind Expansion University

90 Videodisc

95 Videotape in college, public or other libraries

97 Videotape lent to student for home viewing either free or for a fee

S. HOURS OF INSTRUCTION BY NON-TELECOMMUNICATION SYSTEM:

This item is the total number of mandatory hours of instruction or contact between an instructor or instructional support staff and students that occurred without the aid of a telecommunications system. Include orientation sessions,

discussion sessions, microcomputer and science laboratories, etc. Include time when exams are monitored by either faculty members or support staff. Do not include time when exams are not monitored by faculty.

99=Variable or do not know.

T. OFFICIAL REPORTING ENROLLMENT:

This data is very important, yet it is also some of the most difficult to compare among institutions, because there are many different methods of determining "official enrollment." It would be helpful to attach an explanatory note to the data input sheets the first time your institution participates in the study, indicating that point in the semester when the "official" enrollment is taken. Report this data as the percent of the semester which is passed when "official" enrollment is determined; e.g., the 4th week of a 16 week semester = 25%. It is not necessary to attach an explanation in subsequent semesters unless the definition changes.

U. WHAT PERCENT OF THE INSTRUCTION BY TELECOMMUNICATIONS WAS LIVE?

Sometimes a telecourse is offered in conjunction with live instruction via telecommunications systems. Enter the percent of the total mandatory instruction delivered over a telecommunications system that was live, i.e. not recorded. Do not include time for any optional activities such as discussion sessions, conferences, etc. These are reported in item "V".

V. WHAT FORMS OF TELECOMMUNICATIONS ARE AVAILABLE FOR STUDENT-FACULTY INTERACTION?

This does not include any part of regularly scheduled instructional activities included under "U". Include one-on-one contacts as well as optional group arrangements not included in "U". Do not include telephone or U.S. mail service. Report the most important system if more than one is used.

1. Audio conferencing via telephone bridge
3. Electronic mail - personal computer networks by modem
5. Micro computer diskettes
8. Televised discussion sessions over cable television with student questions via telephone
9. Multiple forms

W. LEVEL OF INSTRUCTION FOR THIS COURSE

1=freshman, sophomore
2=junior, senior
3=masters
4=Ph.D.
5=other

SURVEY OF COLLEGE CREDIT TELECOURSES

ITC/AACJC - ANNENBERG/CPB PROJECT

INPUT SHEET A

Enter appropriate numbers from the "Instructions for Completing Data Input Sheets." If the appropriate response for the item is not on the sheet, enter the information on the blank line below the item. A code will be assigned for future use. Updated "Instructions for Completing Data Input Sheets" will be distributed periodically. Right justify all numbers. Copy this sheet and Input Sheet B for use in subsequent semesters.

Contact Ron Brey for additional information or clarification: P.O. Box 161161, Austin, TX 78716, 512-483-7571

INSTITUTIONAL DATA INPUT SHEET "A"

COMPLETE ONE SHEET "A" PER SEMESTER, ATTACH TO THE FRONT OF "B" DATA SHEETS.

Person Completing Form:_____Date:_____
Telephone Number:_____

A. INSTITUTION (# FROM CODE SHEET) A.__ __ __ __
_____

B. SEMESTER/QUARTER (# FROM CODE SHEET) B.__

C. YEAR (ENTER LAST TWO DIGITS) C.__ __

D. NUMBER OF CONSORTIA MEMBERSHIPS (ENTER NUMBER) D.__

E. MOST IMPORTANT CONSORTIUM (# FROM CODE SHEET) E.__ __
_____

F. HIGHEST DEGREE OFFERED BY INSTITUTION (# FROM CODE SHEET)_____ F.__

Please staple this page to the front of all the COURSE DATA INPUT SHEET "B". Enter the number of attached "B" sheets ____.
Return completed forms to Ron Brey.

COURSE DATA INPUT SHEET "B":

COMPLETE ONE SHEET FOR EACH COURSE,
ENTER INSTITUTIONAL CODE, ITEM A.__ __ __ __ Year 19___ Semester_____

NOTE: It is not necessary to complete the entire form if this course was reported previously. Enter the appropriate code numbers for item "G" and only the data for those items which have changed.

G. TELECOURSE NAME (# FROM CODE SHEET) G. __ __ __ __
COURSE:_____PRODUCER:_____

H. PRODUCER (0 IF REPORTING COLLEGE, 1 IF OTHER) H. __

I. USE MATERIALS RECOMMENDED BY PRODUCER? I. __
(# FROM CODE SHEET)_____

J. USE MATERIALS PRODUCED BY YOUR INSTITUTION? J. __
(# FROM CODE SHEET)_____

K. LICENSED FROM (# FROM CODE SHEET, INCLUDE CONSORTIA) K. __ __ __
_____

L. NUMBER OF PROGRAMS IN SERIES (ENTER ACTUAL NUMBER) L. __ __ __

M. HOURS OF PROGRAMMING IN SERIES (ENTER ACTUAL NUMBER) M. __ __

N. DEPARTMENT OFFERING COURSE N. __ __ __
(# FROM CODE SHEET)_____

O. NUMBER OF CREDIT HOURS (ENTER ACTUAL NUMBER) O. __ __

P. DOES THE TELECOURSE CARRY THE SAME CREDIT AS P. __
ON-CAMPUS COUNTERPART? (# FROM CODE SHEET)
_____

Q. THE SAME ACCEPTANCE AS ON-CAMPUS COUNTERPART? Q. __
(# FROM CODE SHEET)_____

R. TELECOMMUNICATION SYSTEMS USED (# FROM CODE SHEET) R1 __ __
(LIST IN ORDER OF IMPORTANCE, MOST IMPORTANT FIRST) R2 __ __
_____ R3 __ __
R4 __ __

S. REQUIRED HOURS OF INSTRUCTION BY NON-TELECOMMUNICA- S. __ __
TIONS SYSTEM (ENTER ACTUAL NUMBER)

T. OFFICIAL ENROLLMENT (ENTER ACTUAL NUMBER) T. __ __ __
WHEN DURING SEMESTER IS DATA REPORTED? SEE NOTES____%

U. WHAT PERCENT OF THE MANDATORY INSTRUCTION BY TELECOM- U. __ __
MUNICATIONS IS LIVE? (ENTER PERCENT)

V. WHAT FORMS OF TELECOMMUNICATIONS ARE AVAILABLE FOR V. __
STUDENT-FACULTY INTERACTION?_____

W. LEVEL OF INSTRUCTION FOR THIS COURSE (1=FRESH/SOPH. W. __
2=JUNIOR/SEN., 3=MASTERS, 4=PH.D., 5=OTHER)