The advantages and disadvantages of presenting telecourse video programs are discussed with respect to three basic delivery modes used by Austin Community College (ACC): broadcast television, cable television, and videotapes in libraries and other public facilities. First, background information is presented about Austin, the local availability of cable television, and ACC's experiences in offering telecourses. Next, instructional considerations used in the selection of telecourses at ACC are outlined, including the college's philosophy of applying the same standards and procedures to telecourse programs as to regular on-campus programs and faculty evaluation of programs and materials. Next, the impact of each of the three delivery systems on student enrollment is assessed, the relationship of viewing method to student age and course content is examined, and reasons students are more likely to view telecourses over broadcast television than cable television, and most likely to view programs in a library are suggested. Then, college and student costs for each type of delivery system are discussed. The viability of buying time on broadcast television is explored in relation to the size of the potential market; the potential for using cable television is related to numbers of households subscribing to the system; and the value of placing videocassettes at off-campus sites to increase enrollments is contrasted with the costs of cassette players, monitors, and tapes. (HB)
College credit courses by instructional television have been offered for almost 30 years. The changes in the production, distribution, and utilization of telecourses has been as great as the changes in the television industry in general.

Austin Community College (ACC) has not developed new technology or produced telecourses. However, the setting of the Austin metropolitan area and the applications the College has made of existing resources has resulted in a unique and successful instructional television program.

The basic purpose of my presentation is a discussion of some of the advantages and disadvantages of presenting telecourse video programs by each of the three basic delivery methods: broadcast television, cable television, and videotapes in libraries or other public facilities. The discussion is divided into three areas:

1. the instructional considerations used in the selection of a telecourse,
2. the impact which each delivery system has on enrollment and,
3. the potential income and expenditures associated with each method of offering telecourses.

*Paper presented at the 62nd Annual Convention of the American Association of Community and Junior Colleges, St. Louis, Missouri, April 4-7, 1982.*
Background

The City of Austin is the Capital of Texas. The major employers are the state, the University of Texas, an increasing number of electronics firms such as IBM, Texas Instruments, Motorola, Tracor, and Lockheed. The city's population is approximately 350,000 and the three county metropolitan area 550,000. The city and surrounding area is growing rapidly at an annual rate of about 3%.

A cable television franchise was first awarded in 1963. Because only one local station was available then (currently four) cable television was an instant success. During 1980 and 1981 the city went through a controversial refranchising process. The original 12 channel system has been expanded to 23 channels. In 1986 it will have 54 channels with the capability of being doubled to 108. Virtually all the residences in Austin and in most surrounding communities are currently wired. Cable television is treated as a basic "utility" by Austinites which results in over one-half of all residences being subscribers.

ACC offered its first telecourse, U.S. Government Survey, during the 1979 spring session with an enrollment of 125 students. Enrollment increased to 618 in seven courses during the 1982 spring session. Eleven telecourses will be offered during the 1982 fall session.

The instructional resources for telecourses at ACC consist of a textbook, study guide and a series of video programs. Students may view the video programs on the local PBS station if the course is offered as part of PTV-3, cable television, and
college and public libraries. The College's ability to use these methods varies depending upon the rights that can be obtained from the distributors. For example, during the 1982 spring session five courses were shown over the local PBS station, with each program also being shown five times that week on cable television. Videotapes were in up to nine libraries. One course was shown on cable with videotapes in libraries, and one course could be viewed only in libraries.

I. Instructional Considerations Used in the Selection of a Telecourse.

It is the basic philosophy of the College (see appendix A) that the procedure used to approve the offering of telecourses be as close as possible to that used for the approving of on-campus classes, and that the instructional content be equivalent to on-campus classes. The faculty has a key role in this procedure. They are responsible for evaluating the instructional content of the course and can effectively veto the proposed adoption of a telecourse. They are also responsible for the periodic reevaluation of telecourses and can recommend the production of supplemental print and video materials.

Students are able to take telecourses on a self-paced basis. Therefore, the College must be able to obtain the rights to have sets of video cassettes of the programs in libraries. Not only does this allow telecourses to be taken on a self-paced basis but it also makes it easier for students with different study habits and academic backgrounds to succeed in these courses.

Instructors for telecourses receive a one section reduction
in their workload the semester prior to first offering a tele-
course. They review all the instructional materials for the
course and prepare the class syllabus, exams, and additional
instructional materials.

II. The Impact Which Each Delivery System Has on Enrollment

Remember that there are three basic ways in which students
can view the video programs for telecourses: broadcast television
(PTV-3 courses on the local PBS station, KLRU-TV), cable tele-
vision, and in libraries.

Data from the 1981 fall session indicate that courses shown
over KLRU-TV had 7% to 14% of their students living beyond
Austin and its surrounding suburbs. The one course offered by
cable had only 3% of its students from these outlying areas.
These trends were also found to exist during the 1982 spring
session.

The data varied greatly among the PTV-3 courses due to the
differences in the type of person that enrolled in each course.
A more detailed analysis of the two extremes, United States
Government Survey and Humanities Through the Arts, will be made.
The government course is required for most ACC degree plans and
students must take it in order to graduate with a bachelors
degree from any state institution in Texas. The typical student
was someone who identified themselves as a freshman or sophomore.
Only 15% of the students were 30 years of age or older.

Arts In A Contemporary Society is not a required course
for any degree program. It appealed to the individual who wanted
an introductory course in the arts. Thus 48% of the students
were 30 years of older.
<table>
<thead>
<tr>
<th>Age</th>
<th>U.S. Government</th>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>22%</td>
<td>6%</td>
</tr>
<tr>
<td>20-24</td>
<td>47</td>
<td>25</td>
</tr>
<tr>
<td>25-29</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>30-34</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>35-39</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Over 39</td>
<td>3</td>
<td>28</td>
</tr>
</tbody>
</table>

There were significant differences in how students viewed the programs for these two courses.

<table>
<thead>
<tr>
<th>Viewing Programs:</th>
<th>U.S. Government</th>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTV-3 (KLRU-TV)</td>
<td>27%</td>
<td>52%</td>
</tr>
<tr>
<td>Cable TV</td>
<td>24</td>
<td>39</td>
</tr>
<tr>
<td>Libraries</td>
<td>83</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>134</td>
<td>178</td>
</tr>
</tbody>
</table>

The totals exceed 100% since students use more than one viewing method. The humanities students were almost twice as likely to view the programs over broadcast or cable television at home, but were just as likely to view them in a library. These differences are due to the reasons given by students for enrolling in the courses and their different demographic characteristics. The data also demonstrate the importance of the availability of videocassettes for all types of telecourses.

At this point I will make several general observations about PTV-3 courses. Students enrolled in PTV-3 courses are either more likely or at least as likely to view the programs over KLRU-TV as they were on cable television. This is not surprising since KLRU-TV reaches many more people than cable
television. However, for all PTV-3 courses, libraries were most often used viewing method.

Participation in PTV-3 resulted in larger enrollments than if the courses were offered only by cable and libraries. First, it doubled the number of students enrolling in areas beyond Austin and its immediate suburbs for a net increase of 5 - 10% per course. Second, enrollments within Austin and its immediate suburbs also increased an estimated 5 - 10%. (The estimate is based on comparing enrollment patterns in several courses that were offered only by cable television and libraries before being offered as part of PTV-3.) Thus, the total increase in enrollment due to broadcasting was 10 - 20 percent.

III. Income and Expenditures Associated With Each Method of Offering Telecourses

Until the advent of PTV-3 offering telecourses over broadcast television could be prohibitively expensive. Except for a few cases where commercial stations gave free air time early in the mornings, broadcasting could cost $200-$300 per hour. Leasing a course for cable television or on-campus use may also be prohibitive for many colleges because of the basic license fee. However, for a college participating in PTV-3 the basic fee per course each semester is either $300 or $400 and $15 per enrolled student. Whether or not a college can justify paying a PBS station for broadcasting time will depend upon the potential size of the market and the availability of alternative delivery systems such as cable television and off-campus sites. Many stations participating in PTV-3 do not charge any additional fee.
The effectiveness of cable television to increase enrollments and its cost effectiveness depends upon several variables. Affecting the potential size of the cable audience are: the percent of area residences passed by cable and the number of households actually subscribing, whether or not access is free; and how much access time can be obtained. Leasing courses for only cable television is generally more expensive than if the course is part of PTV-3 since the initial license can be over $2,000 and $10 per student.

Whether or not to place videocassettes at off-campus sites is one of the most important decisions than can be made. The availability of off-campus viewing definitely increases enrollments and increases the percent of students that successfully complete the course. However, the cost for players, monitors, and sets of tapes can be the most costly component of an instructional television program.

Choosing the telecourses which are to be offered and how students will view them are only two components of a complicated formula for developing a successful telecourse program. For example, promotion is obviously a crucial component, but that would require an entirely separate discussion. Research is needed on the viewing patterns of students and the effects which the different viewing methods, by themselves or in combination, have on student performance.

The 1980s will be an important decade for instructional television. New technologies such as interactive cable television, video discs, and computer-assisted instruction will greatly expand the accessibility to a postsecondary education.
These technologies may also significantly improve the quality of education. However, each of these technologies will require tremendous expenditures for hardware, software and the training of personnel for their use. Whether or not most postsecondary institutions will be able to use these technologies, extensively, such as in instructional television, is open to serious doubt.
Appendix A

The offering of courses by instructional television at Austin Community College is part of the College's activities to improve accessibility to a postsecondary education. The basic goal in this effort is to maintain a variety of modes of instruction to meet the needs of all students. These alternative modes of instruction should augment, not replace, on-campus sections.

As with all other modes of instruction, the procedures used to propose and adopt ITV sections for existing courses or new courses should be consistent with existing College procedures for all courses and sections of courses.

The instructional content of ITV courses should meet the standards of on-campus courses. The minimum standards require:

a) high quality video programs,

b) standard print materials,

c) student study guide,

d) methods of evaluating student performance.

ITV courses and their instructors will be evaluated periodically. Students should evaluate the effectiveness of the methods used to distribute the video programs, their quality, and related topics. Students should also evaluate the instructor. Although a different evaluation form must be used, the same general procedure for evaluation should be followed as in student evaluation of instructors for on-campus courses. The student evaluation would be part of the instructor's over-all evaluation.

As with any course there should be periodic revisions of materials. New editions of textbooks and study guides should be adopted as soon as they become available. Although the revision and updating of the video programs is the responsibility of the producers, the programs should be reviewed once every several years to determine if they are current. At least once every three years each ITV course should be reviewed by the appropriate Task Force to determine if the material is still current and the course fits into the department's curriculum.
PROCEDURES FOR OFFERING ITV AND OTHER MEDIA COURSES

New Courses Or Sections of Existing Courses

1. Generally, recommendations for offering an ITV (or other media) course are initiated or received by instructors, task force leaders, the Coordinator of Instructional Television, a Dean of Instruction, or the Associate Vice President of Instruction. If others learn of the availability of an ITV course that they would like to propose, they should contact one of the above.

2. The initiator requests that the consideration of the ITV course be placed on the agenda of the appropriate task force if one exists. Where there is no task force, the department head or division chairperson is contacted. The task force (or appropriate personnel where there is no task force) has an initial discussion on the appropriateness of adopting the ITV course. Resource people at the meeting would include the initiator, the Coordinator of Instructional Television, the Dean of Instruction, and possibly others.

3. The task force recommends certain instructors to evaluate the course. The initiator, the Coordinator of Instructional Television or other academic administrators may also recommend evaluators.

4. The evaluators review the video programs and print materials and make a recommendation to the task force or department.

5. The Coordinator of Instructional Television signs a form which indicates that the course is an acceptable ITV/media course and that funds are available to acquire the course and duplicate the tapes. This form is submitted to the task force. If a task force or department head/division chairperson recommends adoption AND IF THIS PROPOSAL IS FOR A NEW COURSE NOT YET OFFERED BY AUSTIN COMMUNITY COLLEGE, the initiator or task force leader completes the regular Curriculum Committee "Proposal for Course or Curriculum Change" form, attaches the document from the Instructional Television Coordinator, and submits the package through the normal channels to the Curriculum Committee chairperson.

If the task force or department head/division chairperson recommends adoption of the instructional television format FOR A COURSE ALREADY BEING TAUGHT AT ACC, the task force leader or division chairperson attaches a brief note to that effect to the document completed by the Coordinator of Instructional Television and forwards it through the appropriate instructional dean to the Associate Vice President for Instruction.

6. If the ITV course or section is approved, an instructor will be identified by the instructional administrators and preparations for developing the course will be assigned.

7. In order to help ensure the instructional quality of the course there shall be periodic reviews of the instructional materials, as needed, but at least once every three years.