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ABSTRACT
              In order to determine what constraints lead students
to enroll in television-based courses, personal interviews were
conducted in the fall of 1989 with students enrolled in at least one
telecourse at four institutions, i.e., Governors State University in
Illinois, Northern Virginia Community College, Memphis State
University in Tennessee, and the University of South Dakoa.
Twenty-five students were interviewed at each institution, for a
total sample of 100 students. They were asked to rate the importance
of and comment on potential barriers to enrolling in on-campus
courses, including time, distance, transportation, responsibilities
at work, family concerns, and daycare. Analyses of their responses
indicate that time rather than distance seems to be the major
constraint facing these students. They find that their greatest
challenge is managing their limited time in view of competing demands
from jobs, families, and other responsibilities. Most of them
indicated that interaction with faculty is an important feature of
distance education; however, interaction with other students is less
important. Computer-based communication through use of electronic
mail and computer networks seems to be a feasible approach to
providing increased communication between faculty and distance
education students, and telecourse students, for the most part, are
favorably disposed toward telecourses that would require them to use
microcomputers in their homes. They are less inclined to take courses
that require the use of computers in the work place, and would resist
courses that require them to come to campus or learning centers to
use computers, especially if those computers were high-powered
workstations. (DB)

# Understanding Distance Education:
## Identifying Barriers To College Attendance

A Report From
**The Annenberg/CPB Project**

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Understanding Distance Education:
Identifying Barriers To College Attendance

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## Understanding Distance Education:
## Identifying Barriers To College Attendance

### INTRODUCTION

For millions of Americans, the pursuit of a college degree remains elusive because they live too far from college campuses and/or have neither the time nor the resources to attend regular on-campus college courses. Many of those individuals pursue degrees on a part-time basis. They are variously referred to as distant learners or non-traditional learners. And one of the approaches they use to make progress toward a degree is to enroll in television-based courses.

The Annenberg/CPB Project was established in 1981 to provide opportunities for persons to pursue college degrees using telecommunications technologies. Among other activities, the Project has funded television-based courses such as THE BRAIN, ECONOMICS U$A, FRENCH IN ACTION, and ART OF THE WESTERN WORLD. Those courses have been taken by more than 135,000 students since they first became available in 1984. (The course materials are also used in on-campus courses that serve an estimated 1.5 to 2 million students each year.)

As part of its on-going research and evaluation program, the Annenberg/CPB Project wanted to learn from students who enroll in television-based courses what constraints led them to enroll in those courses. Among the questions of interest were: How "distant" are the students from college campuses? Is distance a major constraint to the pursuit of a college degree? Are there other constraints that weigh more heavily, such as time constraints, work and family responsibilities, expenses?

In addition, there was interest in knowing more about students' access to and willingness to use computers in television-based courses. This interest grew out of a perceived trend toward the use of electronic mail and computer conferencing to facilitate student interaction with the faculty member and other students in television-based courses. Do students have access to computers at home and at their places of work? Are they willing to use those computers in television-based courses? Are they willing to come to campus or learning centers to use high-powered workstations?

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## A STUDY

To provide preliminary answers to these questions, Hezel Associates was commissioned to conduct a study of students enrolled in telecourses. Personal interviews were conducted with students enrolled in at least one telecourse at four institutions: Governors State University in Illinois, Northern Virginia Community College, Memphis State University in Tennessee, and the University of South Dakota. Those colleges were selected because they represent a broad spectrum of institutions, serving urban, suburban, and rural students. Twenty-five students were interviewed at each institution, for a total sample of 100 students.

Students were asked eight general questions, several of which contained subquestions. Two screening questions checked the eligibility to participate in the study. Only students who were enrolled in a telecourse and who were not taking on-campus courses were eligible. Respondents were asked the distance from their home to campus, the commuting time to campus, their usual mode of transportation, and whether they travel to campus for any part of their telecourse.

The interviewers presented students with potential barriers to enrolling in on-campus courses and they were asked to identify the factor as a consideration that was "not at all important," "somewhat important," or "very important" in their decision to enroll in the telecourse. The factors were: time, distance, transportation, responsibilities at work, family concerns, daycare, and other factors.

The importance of students' interaction with faculty and other students was assessed, as well as students' likelihood of enrolling in the course if they were required to use a home computer, a computer at work, or a computer or special workstation on campus or at an extension center. Within the general question, students were also asked whether they had a computer available at home or at work that they could use for course work.

The sample was selected randomly from lists of students who were enrolled in television-based courses at the colleges when the survey was conducted in Fall 1989.

The population interviewed paralleled the typical telecourse student population on demographic variables that are normally tracked: 61% were female, their median age was 36 years, and they were enrolled in courses that spanned the full range of academic disciplines.

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# THE FINDINGS

## Distance From Campus

The mean distance from campus was 68 miles. One-fourth of the students lived 40 or more miles from campus. However, most students had a shorter commute: the median was only 15 miles.

Naturally, the distances varied greatly from college to college. For instance, most of the students at Northern Virginia Community College (96%) and Memphis State University (92%) commuted 20 miles or less, while almost all of the students at the University of South Dakota (92%) traveled 41 or more miles.

## Commuting Time To Campus

The mean traveling time to campus was more than 80 minutes, while the median was about 30 minutes. Although 56% of the students reported a one-way commute of 30 minutes or less, 26% reported having to travel one hour or more each way.

Again, there was wide variation from college to college. At one urban (Memphis State) and one suburban institution (Northern Virginia), more than 84% and 92% of the students, respectively, reported commute times under 30 minutes, while at the other suburban institution (Governors State), four out of ten reported one-way commute times of 31 minutes to one hour. At the rural institution (South Dakota), most students (84%) had one-way commutes of more than one hour.

## Campus Attendance

Almost all students (96%) reported that they get to campus by driving themselves. Three percent (3%) relied on another student for transportation and one percent (1%) relied on public transportation.

Two out of three students reported that they were not required to attend on-campus sessions at any time during their telecourses. The remaining one-third had to travel to campus one or more times for orientation sessions, review classes and/or exams.

## Importance of Various Barriers

Students were asked to comment on the importance of various potential barriers to taking on-campus courses and whether those barriers contributed to their taking telecourses. The barriers that were identified as most severe were time constraints, and work and family responsibilities. Distance was viewed as a less severe constraint than the time-related constraints.

Time Constraints. For more than eight out of ten students (84%), time constraints are a "Very Important" barrier to pursuing higher education. Another 11% said it was a "Somewhat Important" barrier.

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Work Responsibilities.  Two out of three students (64%) cited work responsibilities as a "Very Important" barrier, and another 22% said this was a "Somewhat Important" barrier.  This is especially a problem for students at the University of South Dakota and Governors State University; 80% of those students thought it was a "Very Important" barrier.

Family Responsibilities.  Family concerns were a "Very Important" barrier for 60% of the students and a "Somewhat Important" barrier for another 22%.  This was more true for women than men, and for those under fifty years of age.  It was a major problem for students at Governors State University (80%) and the University of South Dakota (72%), but not for those at Northern Virginia Community College (28%).

Distance from Campus.  Distance from the campus was a "Very Important" constraint for slightly more than half of the students (54%) and a "Somewhat Important" constraint for an additional one-quarter of the students (21%).  As might be expected, this constraint was more severe for students at the University of South Dakota (88%) and Governors State University (84%).

Other Constraints.  Other constraints that turned out to be problematic for fewer of the students interviewed were transportation problems ("Very Important" for one out of three students -- 38%) and daycare problems ("Very Important" for only 11% of the students).

Challenges Of Being A Student

The telecourse students interviewed for this study identified several key obstacles that challenged their success in courses.  The largest challenge was time management.  Sixty-two percent (62%) said they often had difficulty allocating their time among coursework, job, family, and other responsibilities.  The cost of taking courses part-time was a major obstacle to 10% of the students; and difficulty communicating with the faculty member was a major problem for 5% of the respondents.

While most of the students did not find communicating with the faculty a problem, such communication was highly valued by the students:  44% said this was a "Very Important" aspect of the course, and 35% said it was a "Somewhat Important" course component.  Students at Governors State especially thought this was a "Very Important" part of the course (64%).

The ability to communicate and interact with other students was considered less important by most students.  Only 26% thought this was "Very Important," while another 41% thought it was "Somewhat Important."  Again, the students at Governors State placed greater value on this aspect of the course than students at the other institutions.

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## Use of Computers for Interaction

This study sought to determine the feasibility of using electronic mail and computer conferencing to facilitate communication in telecourses. To that end, questions were asked about the availability of computers in the home and in the workplace and whether students favored the use of those computers in telecourses.

Computers in the Home. More than half (54%) of the telecourse students interviewed in this study had computers in their homes. (This is more than double the national average of computers in the home, but it is consistent with the findings from an earlier study that showed that telecourse students owned videocassette recorders [VCRs] at a much higher rate than the general public.) There were wide variations of home computer ownership from college to college: 84% of the students at Governors State owned computers, 72% at Northern Virginia; 32% at Memphis State; and 28% at the University of South Dakota.

Six out of ten (60%) of the students were "Very Likely" to enroll in telecourses that required the use of a home computer, and another 24% were "Somewhat Likely" to enroll. Likelihood to enroll in such courses varied from college to college, following the same pattern as computer ownership.

Computers in the Work Place. Two out of three students (69%) have computers available at work. The variation among colleges follows the same pattern, although the extent of variation is less (from 80% at Governors State to 52% at South Dakota).

While computers are generally available at work, students seem reticent to use them for course work. Fewer than half (46%) said they were "Very Likely" to enroll in courses that would require them to use computers at work; another 28% said they were "Somewhat Likely;" one out of four (23%) definitely would not use computers at work for such a course.

On-Campus Computers. Respondents were very mixed on whether they would take a telecourse if it required on-campus computer use. ("On Campus" also included extension centers.) They divided into three roughly equal groups. One-third said they were "Very Likely" to enroll in such courses, another third said they were "Somewhat Likely," and the final third said they definitely would not take such courses.

Student opposition was especially strong to having to travel to campus or extension center to use special workstation computers. Only one-fourth (26%) said they were "Very Likely" to take such a course and 43% said they definitely would not take such a course. Variations among the colleges took a different pattern than computer uses in the home and work place. Two-thirds (68%) of the students at Governors State would be "Very Likely" to take such a course, whereas only 12% of the Northern Virginia students and 4% of the South Dakota students would enroll.

## SUMMARY AND CONCLUSIONS

Although the term "Distance Education" is becoming the accepted term for describing new educational opportunities that offer students flexibility for pursuing their degrees, time rather than distance  seems to be the major constraint facing those students.  Students find managing their limited time in view of competing demands from jobs, families, and other responsibilities to be their greatest challenge.

Interaction with faculty is an important feature of the course to most telecourse students.  Interaction with other students is less important.

Computer-based communication with faculty seems to be a feasible approach to providing increased communication between faculty and students enrolled in telecourses.  Telecourse students, for the most part, are favorably disposed toward telecourses that would require them to use computers in their homes.  They are less inclined to take courses that require the use of computers in the work place, and would resist courses that require them to come to campus or learning centers to use computers, especially if those computers were high-powered workstations.

## Table 1
## Reported Obstacles To On-Campus Courses
## (n = 100)

|  | Very Important | Somewhat Important | Not At All Important |
|---|---|---|---|
| Time Constraints | 84% | 11% | 5% |
| Work Responsibilities | 64 | 22 | 14 |
| Family Responsibilities | 60 | 22 | 21 |
| Distance from Campus | 54 | 21 | 25 |
| Other Constraints: |  |  |  |
| Transportation | 38 | 25 | 37 |
| Child Care | 11 | 16 | 73 |

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## Table 2
## Availability of Computers
## For Academic Purposes
## (n = 100)

|  | Yes | No |
|---|---|---|
| In The Home | 54% | 46% |
| At Work | 70 | 30 |

## Table 3
## Likelihood of Enrolling In
## Courses Requiring Computer Use
## (n = 100)

| If the course requires use of the computer: | Very Likely | Somewhat Likely | Not Likely |
|---|---|---|---|
| In The Home | 59% | 24% | 17% |
| At Work | 46 | 28 | 23 |
| On Campus (Or Learning Center): | | | |
| Personal Computer | 34% | 31% | 34% |
| Workstation | 26% | 31% | 43% |

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