A year-by-year sketch of the development and implementation of the dial access system for instructional support and enrichment at Oral Roberts University is presented. After this, the learning systems and facilities which utilize the electronic educational media are described. Two organization charts of the university are given. (WH)
Ownership and Use of Instructional Materials Produced on the Oral Roberts University Campus
(SUPPLEMENTARY MATERIALS)

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A CHRONOLOGICAL SKETCH OF THE DEVELOPMENT AND IMPLEMENTATION OF THE DIAL ACCESS SYSTEM AT ORAL ROBERTS UNIVERSITY

A chronological sketch of dial access system implementation begins with the 1966-67 academic year when the system was initiated primarily to provide classroom enrichment material. Due to the uncertainty of the program there was light faculty support. Several attempts by faculty members to incorporate the media proved disappointing and were subsequently dropped. Nevertheless a tenuous program of implementation was begun.

During the year 1967-68 a great deal of emphasis was given to encouraging faculty members to make use of the dial access system and the instructional materials production center. There were a few token efforts to utilize dial access for course content materials. However, the lack of a clear instructional design strategy raised serious questions about the system's potential and partial termination was considered.

Since the largest enrollments were in Humanities, these four three hour courses were hastily adapted during 1968-69 for presentation on the dial access system. Although inadequate production techniques were used, these represent the first efforts to use the system for specific course content. A math course in statistics was also presented via dial access, but did not prove successful.

A major emphasis shift took place in the 1969-70 academic year from simply using A-V or dial access to preparing a well-designed course which included specific behavioral objectives, good evaluation procedures and effective syllabi. Within this new frame of reference several new mediated courses were launched, e.g., an audio series in Psychology, a Principals of Composition course with most of the content presented by dial access, and a course in Oral Communications. The last course was the first to be given adequate production time and thereby has had a longer useful life without major revision than any other course to date.

One of the major discoveries made after preparing an entire course for system usage was that, due to the wide exposure enjoyed by the mediated version, any obvious weaknesses led to immediate attention and revision. This process has continued year after year in upgrading each course presented in this manner in stark contrast to the tendency of weaknesses to go on undetected for years in a traditional classroom environment.
By 1970-71 owing to a strong emphasis on syllabus preparation and a more effective orientation program for new faculty, a positive growth pattern had taken shape. More content material was being mediated and the emergence of more sophisticated design strategies had expanded the system's capabilities. Among the new courses added and revisions made this year were (a) an updated Humanities series utilizing a new visual format incorporating excellent commercial materials, (b) a mediated Introduction to Literature, the first course employing extensive original artwork and Math Analysis & Fortran Introduction which proved ineffective and had to be dropped.

All in all, the content of some eleven courses was being presented via dial access by this time.

The year 1971-72 saw continued improvement primarily in the Humanities units which underwent over thirteen major and thirteen secondary revisions. Faculty projects were added to the new faculty orientation activities along with an excellent teaching series on instructional technology. New courses continued to join the ranks of dial access, e.g., a video tape series for introduction to Old Testament and a course in 20th Century Evangelism and Dynamics of the Christian Ministry. During this year the content of twenty different courses was carried by the dial system.

The greatest growth in course mediation and production sophistication occurred during this year as more programs were scored with music and improved. Sixteen courses were added to the dial system bringing the total to over thirty. These courses had 30 to 100 per cent of their content presented via dial access. Examples included several newly mediated business courses: (a) a six semester hour audio series for Principles of Economics using work sheets, (b) an audio and partial video mediation of two 3 hour courses in Business Law, (c) a video series in Principles of Accounting, (d) fifteen video units on Financial and Industrial Management and a new fifteen video unit course on Personal Finances.

In 1973-74 with production up over the preceding year, special emphasis was being given to the improvement of existing mediated courses. Revision schedules were being developed to expedite the weeding out of ineffective instructional modules. With the increasing availability of better commercial materials, greater consideration was given to incorporating professionally prepared materials into instructional packages. Some examples include: (a) an excellent series in accounting (Alex) prepared by Prentice-Hall which was blended with locally produced materials, (b) four units on visual literacy distributed by Guidance Associates, which were incorporated into the Freshmen English Composition Course, (c) a series of films entitled "American Politics" which are now being used in American Government, (d) a unified series in the Behavioral Sciences released by Communications Research Machines Incorporated
and now being used with locally produced portions for the Introduction to a Psychology course, and the Time-Life series on "Civilization" presently being used in the humanities courses.
A DESCRIPTION OF LEARNING SYSTEMS AND FACILITIES WHICH UTILIZE ELECTRONIC EDUCATIONAL MEDIA

A. The Dial Access System -- Oral Roberts University continues to be among the leaders with its growing utilization of a dial-access, audio-video retrieval system to meet more demanding specifications.

Most of the originating sources and Radio-frequency (RF) terminals for video have color capability. During the spring semester of 1970 twenty class hours of course content were being carried by the dial system. During the 1973-74 academic year over one hundred class hours will be presented via film, video and audio tape, slide and/or filmstrip materials. These programs are presented in various ways with most of them being made available several times for the students’ convenience.

Viewing and listening environments for the newer media include (a) individual carrels including 35 audio stations and 98 video terminals in the John D. Messick Learning Resources Center (LRC), (b) small group stations in open library areas enabling up to eight students to view the same program together, (c) television receivers in most all class-rooms with a dial for accessing the materials, (d) residence hall lounges and individual room viewing areas serviced via RF, (e) additional RF distribution to Howard Hall, Timko-Barton, HPE, Mabee Center, ORA and University Village, (f) three multi-media auditoria each seating 156 and originally equipped to handle a variety of media support materials for a live lecturer. In the last two years these rooms have been used chiefly to present the mediated content units to large enrollment courses. The large bright picture, absence of earphones and good sound system make this a favorite viewing area. Basic components include:

(1) Background projection and operation via a lectern-console in each classroom area. Each of the three sections can be controlled independently. A sliding partition enables two of the rooms to be used together. Special patching allows for slide-tape and audio presentations to be tied into each section simultaneously. The lectern provides for control of 16mm projector, random access slide projector, carousel projector, audio tape decks, dial access control and PA control.

(2) Overhead transparency projectors are available for both background and front projection.
(3) A portable media cart and desk has recently been added for use on the student side of the screen. This was requested by the faculty for more control during certain types of usage.

(4) Other facilities include a sliding blackboard, 4 - 24" color and 8 - 24" black and white TV monitors, and a telephone talk back for control room assist and higher education TV network talk back.

(5) These capabilities can provide multimedia support to any live presentation.

B. **Language Labs** -- These labs have continually been subject to re-design and improvement. From the original commercially designed reel-to-reel and inadequate console control the lab has been updated to include two ORU designed consoles offering greater flexibility and two labs equipped with 62 Telex comparator cassette stations. A time-clock short-wave radio receiver is also used in conjunction with the lab.

C. **Secretarial Science Lab** -- 40 fully equipped stations for skills in shorthand, typing, etc., are equipped with a Selectromatic IBM, hanging headset with 4 position selection which receives 4 cassette sources of commercially prepared materials. A console at the head of the class is specially designed and equipped by the ORU Ed Media Department.

D. **Library Listening Room for Disk and Tape** -- A special room has been set aside for disk and tape usage. The room is located near the disk and tape collection and primarily serves the music and humanities departments. A similar listening area is being considered for the Timko-Barton music building.

E. **Auxiliary (individually controlled) A-V Carrels in the Library** -- Five special carrels provide students with stations to view non-scheduled materials. The student checks out slides, ear phones, projector lens and obtains faculty permission for use of these video materials in these special purpose carrels.

F. **Audio-tutorial Biology Lab** -- A cluster of 12 carrels and 14 other stations provides students with the latest methodology in accessing lab experiences in first year biology. Student enthusiasm for this audio-tutorial lab has been consistently high. The advantages outlined on pages 63-64 of the May 1970 Report of Self-Study continue to be supported in practice.
G. Curriculum Lab -- As a media extension for the Education Department, this well-equipped lab has added an extra dimension needed for student teachers. The latest in software, technique and classroom equipment is at their finger tips. Many school material publishers have placed their materials in the lab.

H. TV and Analysis Studios for Self-Evaluation -- Television services to support learning by video analysis throughout the campus have become available as light-weight remote units have been provided. The University's fully equipped media production studio can also be scheduled for TV recording of this type. A smaller performance analysis studio is also provided for students in Communication Arts and related courses.

I. Classroom Multi-media Equipment -- Most of the classrooms are equipped with a specially designed desk that houses a 35mm projector, overhead transparency projector and a tape recorder. A dial station, metallic chalkboards, hook and loop display boards, talk-back phone for dialogue with TV studio and the computer control center are also available in most classrooms.

J. Audio-visual Services -- A-V services include all traditional equipment support for faculty as well as the more sophisticated video TV gear and a fully equipped Instructional Materials Center for the production of audio-video support materials.
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