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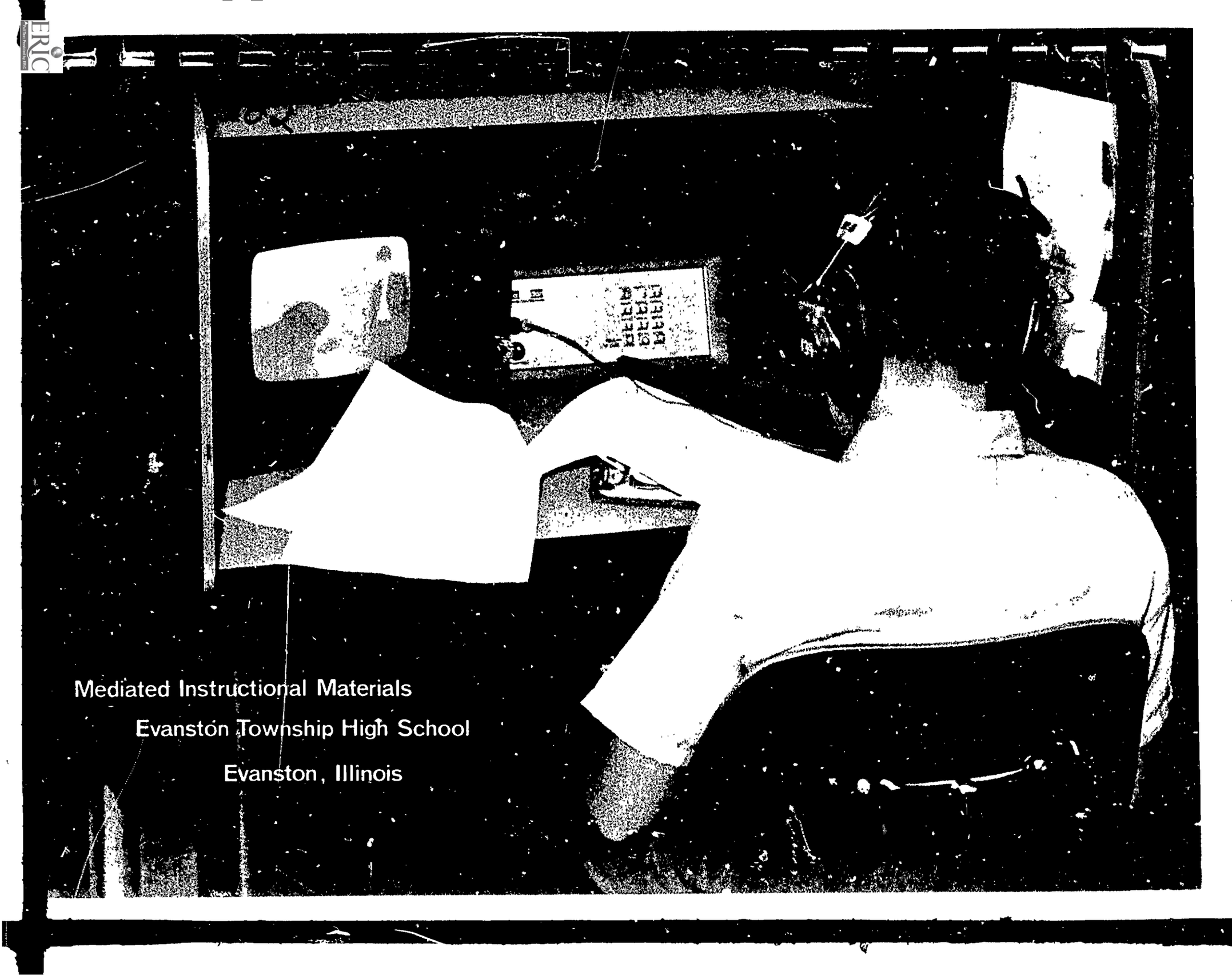
ABSTRACT

This final report reviews the ESEA Title III project which Evanston Township High School used to prepare self-instructional materials on film, audio tape, and video tape for use by students during independent study time. It lists the specific objectives of the project as being to: 1) determine the effectiveness of materials when used by other schools; 2) identify problems involved with the exchange of materials between schools; 3) identify students' and teachers' attitudes toward these materials; 4) evaluate the effectiveness of these materials; and 5) locate problems associated with local production and distribution of materials. A short summary of endeavors which did and did not measure up to expectations is presented, followed by descriptions of the effect of the project upon cooperating agencies and of the extensive dissemination activities undertaken. The final section deals with carrying the project forward without federal assistance and states that the greatest resulting change was faculty recognition of the importance of mediated instructional materials. (PB)



Mediated Instructional Materials

Evanston Township High School

Evanston, Illinois

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education
Washington, D. C. 20202

ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 (P. L. 89-10)

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F I N A L R E P O R T

Evanston Township High School
District 202
Evanston, Illinois

September 28, 1970

N A R R A T I V E R E P O R T

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C H A P T E R I

EFFECT OF THE PROJECT ON THE CLIENTELE INVOLVED

By the 1940's it was apparent that Evanston Township High School was moving toward a more comprehensive curriculum. The building itself, designed for an academic program was remodeled by the addition of facilities for industrial arts, home economics, and business education. Courses of study in the fine arts and performing arts required studios and an auditorium.

By the 1960's the curriculum included over 200 courses intended for the increasingly diverse needs of a student population of 4,000. The proliferation of course titles was indicative of the school's determination to focus attention on the individual student and his needs in spite of increasing enrollments. This concern for the individual has been a cherished tradition of the school since the early days when a full time home room director looked after a group of 250 students in a "home" with the aim of having each student establish his identity in this smaller group while enjoying the advantages possible only in a large high school.

However, the additional facilities, the comprehensive curriculum, the "home room" organization, the tracks for different ability levels (At one time there were seven levels of senior English!), and the faculty's dedication to the

theory (if not actual practice) of individualized instruction---all of these failed to provide the kind of learning environment and experiences in which every individual, regardless of his mode of learning, could reach his highest potential. Too many students were guided, instructed, and supervised until graduation night, after which they were supposed to have developed by some magical means the ability to make decisions, to assume responsibility for their own learning, to be accountable for their mistakes, and to assume the role of an adult.

The administration's decision to attempt to make the school years more relevant resulted in the development of plans for independent study opportunities, a modular schedule offering a variety of time patterns for different instructional needs, and a variety of materials readily accessible at all times.

Time was of the essence because the increased enrollment, the building program, and the adoption of the modular schedule did not enjoy the luxury of an evolutionary development. A revolutionary, crash program was required; hence, ETHS, which had used closed circuit television since a 1955 Ford Foundation experiment for the National Association of Secondary School Principals, once again called upon technology to assist in the implementation of a basic educational

plan.

The general purpose of the ESEA Title III project, therefore, was to prepare self-instructional materials on film, audio tape, and video tape for use by students during their independent study time. The feasibility and effectiveness of these materials would determine the extent to which they would continue to be a part of the instructional program at Evanston Township High School.

Included in this general purpose of the proposal were seven specific objectives:

1. The determination of the relative effectiveness of ETHS materials when used by two parochial high schools and two public high schools in Chicago as indicated by amount, quality, log of activity, and correspondence.

2. The identification of problems involved in exchanging materials with other similar schools, as revealed by the amount of exchange, quality, delays, and correspondence.

3. The identification of student attitude toward mediated instructional materials, with voluntary use and repeated use indicating satisfaction.

4. The identification of relative effectiveness of various kinds of mediated instructional materials with the assumption that frequency of use and repeated use indicate satisfactory use.

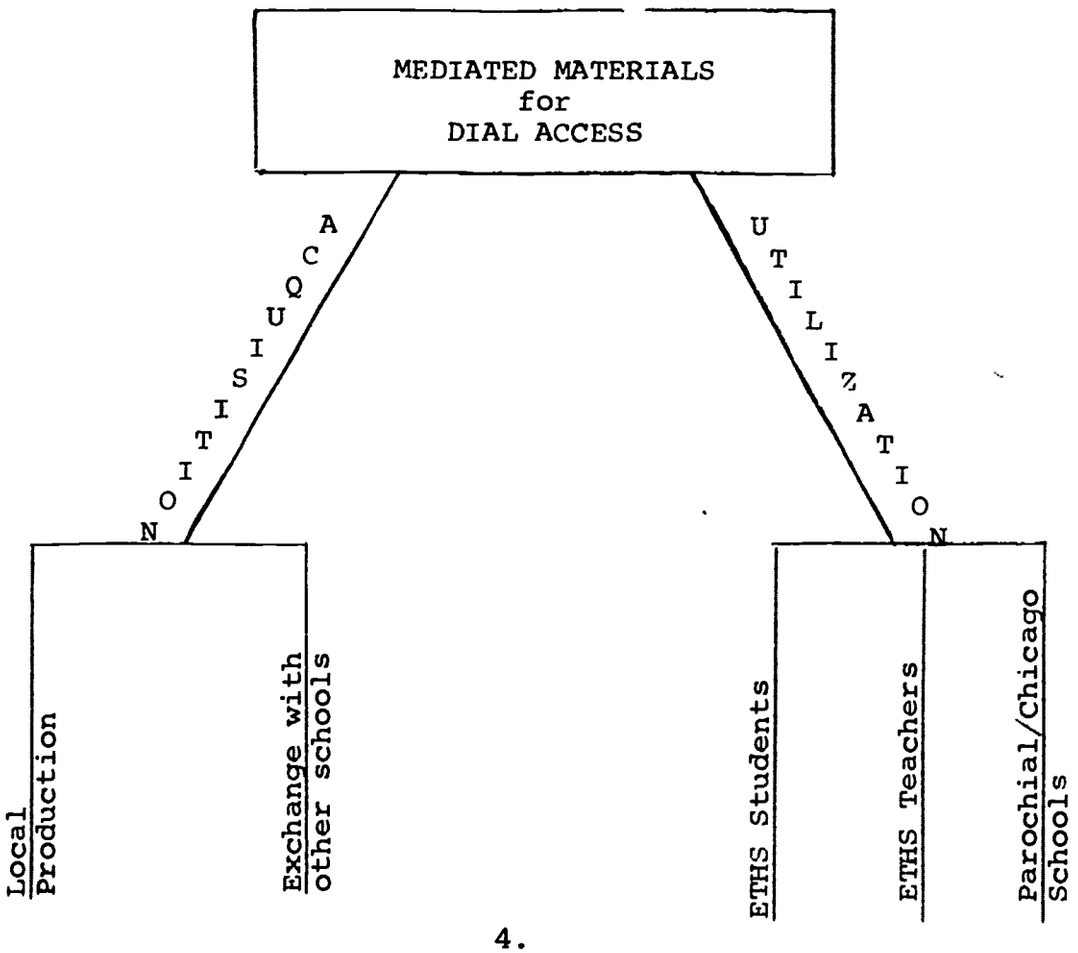
5. The identification of teacher attitude toward mediated instructional materials, with the assumption that voluntary involvement and repeated use indicate satisfaction.

6. The identification of problems in the local production of mediated instructional materials, that is, that which makes it difficult or impossible for teachers to make video tapes, audio tapes, and film.

7. The identification of problems involved in the distribution of materials via dial access video/audio information retrieval as indicated by breakdown reports and comments from students and teachers re availability of materials.

The evidence collected falls into two general categories, as indicated in Figure #1: 1) those related to the acquisition of mediated materials through local production and through exchange with other schools; 2) those related to the utilization of the materials by teachers, by students, and by both students and teachers in parochial schools and Chicago schools:

Figure #1



METHODS OF GATHERING DATA

AND MEASURING RESULTS

Objective #1: The determination of the relative effectiveness of ETHS materials when used by parochial schools and by Chicago high schools.

Procedure: Dr. Evelyn Carlson, Assistant Superintendent of Schools in charge of curriculum for the Chicago Public Schools, selected two high schools she considered most suitable for this study: Hyde Park High School and Senn High School. She contacted both principals, and at the beginning of the school term, the project director contacted both principals. There was no response whatsoever from the principal of Hyde Park. It was later learned that there had been a transfer of principals and the new administrator could not assume this additional responsibility.

Dr. John Coffey, principal of Senn High School, accepted enthusiastically and visited ETHS to discuss procedures. He sent the assistant principal, a representative of the mathematics department, and a representative of the English department to preview materials and study the catalogue of available materials. Delays in completing the studio for video production, the poor technical quality of materials prepared in the temporary cafeteria studios, the lack of opportunity to see materials in use in the resource centers because of installation delays, the inappropriateness of the local materials for the course content and procedures at Senn High School are some of the possible reasons for the lack of interest in pursuing the matter further, especially during the two year period of unrest in the Chicago public schools.

Chapter I - Effect on Clientele

The involvement of the two parochial high schools in Evanston was equally unsuccessful but for different reasons. The principals of the two parochial schools (St. George High School and Marywood School for Girls) met with the ETHS staff on several occasions and agreed on operational procedures following an assessment of their needs. St. George withdrew [illegible] the first year of the project before phone lines had been installed. The school was forced to close because of lack of funds.

The principal of Marywood School brought a group of her faculty to preview materials and select those most helpful to them. Phone lines were installed to feed audio signals from ETHS to Marywood. Video tapes were to be scheduled for playback at Marywood when two of the ETHS technical staff could be freed to operate the videotape recorder at their school. The financial problems faced by many parochial schools in the area forced the closing of Marywood before the program became operational.

Results: Even though the objective of "determining the relative effectiveness of ETHS materials when used by parochial schools and two public high schools in Chicago" was not achieved in any degree whatsoever, the contacts were not entirely fruitless. The Title III staff learned that the

most appreciated contribution to parochial schools would be in the area of enrichment materials and in the subject of science where laboratory equipment was extremely limited; that the Chicago schools have less freedom to experiment with curriculum changes and experience more delay than ETHS in maneuvering a proposal through the channels of administrative structure; that materials adequate to meet the peculiar needs of a teacher at ETHS will not necessarily be enthusiastically endorsed by teachers of the same subject areas in other schools.

Objective 2: The identification of problems involved in exchanging materials with other schools.

Procedure: Three schools were selected to cooperate with ETHS in this study. West Hartford, Connecticut; Beverly Hills, California; were selected for these reasons; 1) both had ESEA Title III projects; 2) the superintendents would be cooperative as they were closely associated in an administrative organization called the Triple S (Suburban School Superintendents); 3) they each had a dial access system operating or in the stage of installation; 4) their student populations were similar in many ways to ETHS; 5) the superintendents were willing

to buy compatible video tape recorders to facilitate exchange of materials. Oak Park was selected because 1) their dial access system had already achieved national recognition; 2) they were a respected academic and athletic colleague in the Suburban League; and 3) their student population faced the same Chicago suburban problems as ETHS students.

The fourth administrative unit represented in the project was the Great High Schools of Pittsburgh, Pennsylvania. During the year previous to the submitting of the project application, the entire Board of Education of the Pittsburgh schools visited ETHS to observe the functioning of the four-schools-in-one concept and to discuss with ETHS staff the implementation of the principle of independent study. They reported that preparation of materials was progressing concurrently with the plans for grouping several high schools into larger, new high schools in an attempt to solve some of the educational problems facing large urban centers.

Following the letters of intent and willingness to cooperate, the activation of the cooperative venture began with a planning conference. Oak Park, West Hartford, and Beverly Hills sent to Evanston their project directors and representatives of the production and teaching staffs. Pittsburgh sent the Director of Library Services and the Director of Television Productions. The details of that

conference are included in the chapter on dissemination activities.

The director of the Title III project visited the Beverly Hills production center to observe the type of temporary facilities that school district would have available during the construction of a new wing which would house the dial access system. Two members of the technical staff visited the West Hartford center to study their equipment and facilities. Both technical and production personnel visited the Oak Park project, which was operating with only audio information available at that time.

During the second year Pittsburgh withdrew from the project as their building plans had been delayed. Press releases later indicated that the Great High Schools program had been abandoned, at least temporarily.

West Hartford's first dial access installation failed to function satisfactorily and their project was delayed while a contract was negotiated with a second company for a different installation. The school system purchased the library of a defunct film company and instituted a system of editing and film clips as an important aspect of their new operation. The second installation functioned successfully, and the operation was satisfactory to staff and to the receiving schools, both elementary and

secondary. However, their new format on IVC tape decks was not compatible with the ETHS equipment being installed at that time.

During construction Beverly Hills continued to operate from a temporary location in a trailer. The majority of their material was selected for the elementary schools which comprise the larger portion of their receiving audience. Their superintendent visited Evanston and reported difficulties with equipment, production, and faculty acceptance, to such a degree that there was no assurance that Beverly Hills would complete the original plans for expansion of the system.

The temporary studio facilities at Beverly Hills were inadequate for high quality dubbings with the results that tapes received from them could not be dubbed a second time for the tape decks of the ETHS facility. The content of the programs was excellent, but unfortunately technical problems detracted from their most effective use. Further difficulties included the delay between the request for a tape (January) and its delivery (May), a time lag which is easily understood when such "extras" must be fit into a schedule already crowded with conferences with engineers and contractors, the audio-visual requests of a traditional school program, studio production schedules involving inexperienced teacher-performers, and the frus-

trations of unsatisfactory equipment operation.

In the meantime Oak Park High School had random access audio information retrieval operating most effectively. The video portion offered only still pictures and visuals, but at the time of this report they had not yet been able to access moving picture film or video tape. Exchange of audio tapes with Oak Park was simple, efficient, and quick. Blank tapes mailed to Oak Park with the numbers of requested programs were returned within a few days. The enrichment tapes were of good quality but were never requested by ETHS staff for dial access use. The mathematics tapes were too closely correlated with the visual materials available only in the Oak Park High School dial access library center.

The extent of the exchange was too limited to evaluate the relative effectiveness of the tapes from the different schools. Approximately twelve audio tapes were received from Beverly Hills and Oak Park, and four video cuts from Beverly Hills. On the other hand, not a single request was received from any of these schools to have copies of materials prepared at Evanston. The significance of this reaction to the catalogues of materials sent to the other schools remains to be determined as time and opportunity permit an investigation of the reasons.

Results: Since the objective was worded "identification of problems", the objective has been satisfactorily achieved if the list of problems has been identified. The experiences of the ETHS Title III project have revealed the following major problems of a technical nature relating to hardware:

1) Compatibility of equipment. Even the same model and manufacturer cannot reproduce tapes of high technical quality unless the machines are truly compatible.
2) Similarity of format. Four-track audio tapes dubbed from two-track tapes create problems on some decks. Something as simple as the length of leader between cuts can cause timing problems when transfer is made to the access tape decks. Video playback equipment that starts on demand from a student station and a video playback machine operated manually on cue or schedule can cause variations in timing and quality.
3) Variations in production standards. The variations in lighting, in legibility of graphics, and in audio volume and clarity

can be tolerated with little difficulty when played back on the same machine on which the tape was recorded. However, when that tape is dubbed and then transferred a second time to the dial access tape decks, these variations become obtrusive and interfere with effective learning at the point of reception.

4) Quality of tape and equipment. Local school production centers cannot afford the equipment necessary for professional quality tapes of the standards met by commercial recording and broadcasting companies.

In the software category the experiences of the ETHS Title III project have revealed the following major problems in the exchange of tapes with other schools:

1) The time lag. ETHS teachers are accustomed to ordering their films by June of the year previous to the school year in which they are to be used. This advance planning permits them to integrate the films into the course as advantageously as possible. To receive late in the second semester a chance to use even excellent videotapes is not welcomed enthusiastically. Since all four schools

involved in the exchange were just beginning to develop materials, no one dared to offer for exchange any tape that was only in the planning or production stage. ETHS, for instance, did not distribute its catalogue of available materials until the second semester of the second year of the project. Teachers are reluctant to release their tapes until they see that the result is satisfactory; other teachers are equally reluctant to schedule a tape and plan activities around a "pig in a poke." Until this time lag can be overcome and experience with production rightfully earns for the tapes confidence in and respect for their technical and educational quality, the delay between conception and utilization will be a serious deterrent to local production and exchange of tapes.

2) The necessity of knowing both content and purpose of material in some kind of preview more definitive than a catalogue listing. The same tape can be used effectively for different purposes if the user knows what approach was used, the purpose and viewer

for whom it was intended. A guest lecturer in science, taped at Beverly Hills, can contribute to the enrichment of students at West Hartford, Evanston, and Oak Park, but a tape on correcting themes, used for a special level of "Dig or Be Dug" students at ETHS may be totally inadequate for the West Hartford students unless there is also an exchange of behavioral objectives and a reference to intended audience with definitive descriptors for the content.

It is probable that if the conference with Evanston, Oak Park, West Hartford, and Beverly Hills were to be held now instead of three years ago, the group could more profitably spend a week previewing and reviewing tapes with a more meaningful assessment that would generate more interest in exchanging tapes.

3) The copyright problems. Both Evanston and Beverly Hills were quite sensitive to the letter of the law in copyright abuses related to the reproduction of copyrighted materials. Releases that were freely granted for use of music materials at ETHS were not so easy to obtain for reproducing those same

materials to send to schools in other states. Beverly Hills, with the unions of the movie industry represented in their P.T.A., found guest lecturers and artists loathe to release to other schools tapes they had been eager to make for Beverly Hills students.

West Hartford assumed a much more lenient policy. As long as the tape was being used for strictly educational purposes, there was less concern about copyright restrictions. West Hartford, furthermore, paid membership fees to an ETV network whose programs they were authorized to record off the air for their own use but not for Evanston.

Oak Park High School took a more moderate point of view on the assumption that certain special interests want the public schools to hesitate to reproduce materials, that fear of copyright restrictions would prevent schools from producing their own materials and thus provide a market for commercially prepared products.

The provisions of the new copyright law include specific restrictions for dial access

retrieval systems when activated by a student at a carrel rather than by a teacher in a classroom. All high schools with dial access expressed their concerns about this threat to the concept of independent study and as a result, the National Education Association called a conference in June '69 to discuss these copyright problems with NEA legal counsel and a copyright attorney working with the members of the Congressional committee. Details of this conference are discussed in Chapter V- Dissemination.

4) Attitude of teachers. Circumstances during the three years of the project made this difficult to attribute to a reluctance to use materials prepared by other teachers rather than to use materials which were not available for preview. With schools increasingly accountable to a more concerned public, it is understandable that teachers would prefer to use those instructional materials with which they are familiar. During an interview with one Evanston teacher, the interviewer posed a direct question to this effect: "How do you feel about using tapes prepared by other

teachers?" The answer reflected the reluctance to which this report refers: "I don't care who made the tape or where it came from as long as I have the option of using it or rejecting it after I have had the opportunity to examine it for my specific purposes."

It seems reasonable to conclude that the attitude of teachers is not so much a problem of exchange of materials or of dial access as it is a problem of delay and lack of opportunity to preview, conditions not necessarily inherent in the exchange of materials. Further study of teacher attitude after production and previewing problems have been solved, should lead to conclusions based on more significant evidence. Later in this chapter under the heading of objective 5 Professor Allan Jacobs, Chairman of the Department of Communications at Loyola University, New Orleans, presents the results of a study of ETHS faculty attitude which he made while taking graduate work at Northwestern University.

Objective 3: The identification of student attitudes toward mediated instructional materials.

Procedure: After a few weeks' trial run in May '69 with only part of the equipment operating, the total complement of 50 carrels was available beginning in October '69. Student use of the carrels was tallied in the following manner: Headsets were kept at the librarians' desks and checked out by students with their ID card and thus registered by computer in the same way books were charged to them electronically. The results appear in chart # 2.

In addition to frequency of use, a further indication of student attitude was tabulated in a school-wide questionnaire administered through the English classes with 3,465 returns. A sample questionaire appears at the end of this chapter.

An interviewer from outside the school taped conversations with a selected sample of 215 student users and 35 non-users, composed of the same percentage of boys, girls, whites, non-whites, 9th graders, 10th graders, 11th graders, and 12th graders as the entire student body of the four schools.

The fourth source of data was an in-depth study of the most frequent users. The IBM lists of users were by ID numbers only, but the number of users by each ID number

was available, and names of students could be identified from the records. There were 13 students who had used the carrels 20 or more times; the next group dropped to 10 or fewer times. Therefore, the detailed study was made of the 13 most frequent users through an examination of their scholastic records, interviews with their counselors, and interviews with the students themselves.

Results: The number of individuals using the dial access in each resource center during each week of operation between October 27, 1969 and May 15, 1970 is indicated on charts 2 and 4. The two weeks with the highest number of users were the first two weeks of regular use (October 27 with 578 and November 3 with 712), the attraction of the novelty explaining the large numbers. However, novelty does not explain the next two weeks of largest number of users: April 13 - 17 was National Library Week with special library reference materials explained on dial access and tours of the resource centers by some English classes. This special emphasis on the availability of many forms of resource materials, including dial access, seems a reasonable explanation for the high use that week with a carry-over to the following week.

However, the same kind of special emphasis in an-

other area apparently did not provide the same degree of motivation to use the carrels. Tapes on college selection, college admissions policies, scholarships, loan funds, interviews with college representatives, interviews with personnel engaged in a variety of careers were shown to parents on Monday of the scheduled week, followed by announcements by counselors and publicized through the daily bulletin, a special bulletin and a display case exhibit. The number of users during the two weeks of these special counseling tapes was 188 the first week and 192 the second week while the average number of users per week between October and April was 283.34. Although the number of users was smaller by comparison, the tapes apparently were impressive for those who saw them because several students (during the taped interviews) referred to these programs as being helpful and recommended that we have more like them.

A second explanation may be found in the fact that counselors have much less contact with their counselees than teachers have with students in their classes. With four counselors to service a school of 1300 - 1400 students, it is unreasonable to assume that they could exert the influence of a classroom teacher in publicizing an activity or motivating the viewing of recommended programs.

Another explanation may be found in the tally of users by grade level (See chart 8 B). The smallest number of users is on the 11th and 12th grade levels, the same group for whom the college and career tapes were intended. The library orientation is part of the instruction in 9th and 10th grade classes, the levels with the largest number of users.

The average number of users per week was 283.34 during the 23-week period as tallied from headset check-out in the resource centers. This average does not reflect the fact that at no time during this period were all 50 carrels operating. In Bacon School, for instance, some carrels were inoperable for periods of two and three weeks. The use chart (chart #2) indicates by an asterisk those weeks when all four schools were affected by holidays, short sessions, or other interruptions of the regular schedule.

Frequency of use was obviously affected by equipment breakdowns. A daily tally (chart #7) of trouble calls was kept by the technical staff during the period from October 15, 1969 and February 17, 1970. During that time there were 17 occasions when all carrels were inoperable. It was impossible to keep a record of exactly when service was restored to each carrel in each of the four resource centers as carrels would be functioning without notifi-

cation to the technical staff. Incorrect use of dial controls and vandalism were responsible for some of the problems, but whatever the cause, the result was that material was not available to the students via dial access.

During the trouble check period between October and February, Michael School reported 54 instances of breakdowns; Beardsley, 52; Bacon, 32; and Boltwood, 30. Since the frequency of trouble calls correlates directly with the frequency of use in the four schools, further study should be made of the cause and effect relationship in this area, one of real concern to schools anticipating the installation of this type of equipment.

In Michael School a count was made of the use by days with Tuesday having the most use (326) and Monday the least (189). However, there was no appreciable difference over the 23-week period with the rank of frequency being Tuesday, Wednesday, Thursday, Friday, and Monday.

Michael School consistently had the most users. The only exceptions were the weeks of January 12 and January 19 when Boltwood School was instituting a new policy of supervision in the resource center. During those two weeks only Boltwood School, which had the fewest users during the remainder of the year, had the most users.

The total number of users, as registered by the headset check-out, was 6,517, or an average of 283.34 per week.

There are two possible explanations for the difference between the total number of users as indicated by the headset check out (6,517) and the total number of users indicated by the response to the all-school questionnaire (2,284). One is that only 3,443 students answered the use question on the questionnaire. The other is that 4,233 users could be repeaters since the headset check-out gives no indication of the repeaters. (This could be determined if time permitted as it was done for the 13 most frequent users.)

The users were divided by schools as follows:

Michael School with 1968 users, or an average of 85.56 per week

Beardsley School with 1,561 users, or an average of 67.86 per week

Bacon School with 1,492 users, or an average of 64.86 per week

Boltwood School with 1,466 users, or an average of 63.73 per week

In addition to the frequency of use data obtained from the headset check-out, the student questionnaire provided additional information regarding student attitude in the answers to five of the questions:

Question No. 3: Have you used the dial access carrels this year? (chart #8)

Question No. 4: How many times have you used them? (chart #9)

Question No. 6: Was your listening/viewing voluntary, recommended, or assigned? (chart #10)

Question No. 7: If you did not use the dial access carrels, why not? (chart #11)

Chart No. 8 is the data collected on the question, "Have you used the dial access carrels this year?" Comparisons between boys and girls, between 9th, 10th, 11th, and 12th graders, between the four schools reveal no significant differences.

Responses from 742 students in Michael School indicate 67.38% have used dial access

Responses from 1045 students in Beardsley indicate 66.56% have used dial access

Responses from 868 students in Bacon indicate that 63.82% have used dial access

Responses from 788 students in Boltwood indicate that 63.58% have used dial access

69.74% of the 1864 responses from boys indicated they had used dial access

62.31% of the 1579 responses from girls indicated they had used dial access.

The highest percentages of users in any one group was 70.20% of Beardsley boys. The lowest percentage was 59.48% of Boltwood girls. The highest percentage by grade levels was Michael 9th grade with 88.44% of the respondees indicating they had used dial access while the lowest percentage was Boltwood 12th grade with only 35.43% of the respondees indicating they had used dial access.

The responses by grade levels throughout the four schools were as follows:

Highest number of users: 9th grade (938 respondees) with 80.17% users

2nd: 11th grade (736 respondees) with 69.57% users

3rd: 10th grade (950 respondees) with 65.05% users

4th: 12th grade (719 respondees) with 42.00% users

The high number of users in the 9th grade may be explained by three causative factors: 1) a visit to the resource centers and a view of the non-operating dial access carrels were included in the freshman orientation program; 2) the freshman mathematics program is the only course in school based totally on performance criteria with individual progress and independent study inherent in the instructional strategy; 3) teachers in English and Social Studies produced and used tapes designed for low ability freshmen.

The high number of users in the 11th grade may be due to the large number of students enrolled in Driver Education with tapes assigned for viewing and listening. Student interviews substantiated this assumption as many students referred to the interest and value of these programs. Many students not in Driver Education mentioned having been attracted to these programs by the cartoons they noticed as they walked by and by the comments of other students.

Further study of the relationship between student use and teacher involvement in the preparation of materials is obviously warranted. No conclusion regarding this relationship is justified at this time because of the contamination of data, caused by team teaching techniques with a group of three or four teachers making one assignment to view a tape prepared by only one of them or by a teacher on the previous year's team. Therefore, the ratio of student users to material constructors cannot be determined until more discrete data can be collected.

Chart No. 9 gives the data collected in response to question 4: "If you have used dial access carrels, how many times have you used them? 1 - 5, 6 - 15, or 16 or more."

Responses were received from 2,350 students. Of these 74.55% indicated they had used the carrels 1 - 5 times; 20.85% indicated they had used the carrels 6 - 15 times; 4.59% indicated they had used the carrels 16 or more times.

The highest number of users in the group marking 16 or more times was Michael 9th grade with 9.85%; next was Bacon 9th grade with 9.32%; next, Michael girls with 8.80%; and fourth, Michael 10th grade with 8.14%. A possible explanation for the Bacon 9th grade rating is the performance criteria mathematics course which is used more

extensively in that school.

In all four schools Michael leads the number of 16 plus users with 6.26% and Boltwood is second with 4.61%. It seems reasonable to conclude that although Boltwood has the lowest number of users, those Boltwood students who do use dial access tend to be repeated users.

In all four schools 9th graders had the highest percentage of frequent users with 6.93% indicating that they had used dial access 16 or more times. Other grade levels were as follows:

10th grade - 5.65%

11th grade - .92%

12th grade - 3.37%

It should be noted in this connection that 11th graders had the highest percentage of students using dial access 1 - 5 times, 84.93%.

Further study of the frequency of use data is indicated. A separate study should be mounted to determine the factors affecting the number of uses: The technical quality of the material? The technical problems in the carrels? The relationship between assigned and voluntary viewing? The attitude of the teacher? The method of orientation to independent study? The amount of free time in the schedule? The degree of difficulty of the material? The length of the program?

Interviews with student users revealed that several students mentioned "I could play it over and over until I understood." A follow-up study of this aspect of the frequency pattern should reveal information helpful to teachers in determining how much repetition should be allotted to class time and how much reserved for independent work at the carrels.

Chart 10 presents data in response to the question: "Was your listening voluntary, recommended, or assigned?"

40.22% of the 2,556 respondees indicated their use was voluntary.

20.03% indicated their use was recommended.

39.75% indicated their use was assigned.

Michael School, which consistently throughout the project period had the largest number of users, also had the highest percentage of assigned use: 44.31%. Boltwood School, which had the smallest number of users, had the second highest percentage of assigned use: 44.27%. Beardsley School had 37.18% assigned viewing, and Bacon School had 34.27% assigned viewing. Bacon School had the highest percentage of voluntary viewing: 46.69%.

The response by students by grade levels confirms a previous assumption that required viewing in Driver Education explains the high incidence of use in the 11th grade.

11th grade - 44.44% viewed as an assignment
9th grade - 42.79% viewed as an assignment
10th grade - 35.21% viewed as an assignment
12th grade - 34.81% viewed as an assignment

In all cases recommended viewing was less than either assigned or voluntary. However, students stated in their interviews that they often used dial access at the recommendation of a friend. The data collected regarding the source of information (chart 12) re dial access lists teachers and other students as second and third respectively as the most frequently mentioned source of information. It is possible that semantic problems in the connotations relative to the word "recommended" may account for some of the differences.

Chart 11 presents another aspect of student attitude with data on reasons given by students for not using the dial access system.

Tallies of responses to this question totaled 2,164. Students were instructed to check not more than three of the seven alternatives. The total ranking in the four schools was as follows:

1st -	"I had no reason to use them."	45.51%
2nd -	"I don't use the resource center."	13.03%
3rd -	"I preferred to use something else."	12.20%
4th -	"I didn't have time."	9.70%
5th -	"I didn't know how to use them."	8.96%
6th -	"The equipment wasn't working."	8.27%
7th -	"I didn't like what I heard about them."	2.31%

The conclusion is obvious: the overwhelming reason for not using the dial access carrels was that there was

no reason for using them, at least no reason accepted by students as valid. The materials available there were simply not an essential part of the instructional program.

Furthermore, these figures refute the fears of the librarians and Title III staff members that malfunctioning of equipment seriously affected positive results. "Equipment wasn't working" listed by only 8.27% and "I didn't like what I heard about them" listed by only 2.31% were low percentages when compared with the 45.51% who listed "had no reason to use them" and the 13.03% who "don't use the resource center." These represent only the student attitude and do not take into account that faulty equipment may explain the reluctance of teachers to rely upon it for essential material.

These figures were substantiated by information gathered in the student interviews. Although several mentioned having technical problems receiving the tapes, a large proportion of students added a comment such as "But they'll get that worked out" or "It will be okay when they get it fixed," or "I got it all right the next time." There seems to be an inference to be drawn here that this generation of students accepts technology as capable of solving its own operational problems and has confidence in the newer dial access in the same way they trust their more familiar transistor radios and portable television.

Their attitude seems best expressed in one of their own slang expressions of acceptance without enthusiasm: "So what else's new?"

An analysis of the reasons for not using dial access revealed more significant differences when the responses were listed by sex and grade level.

The 1,055 boys responding to this question listed their reasons for not using dial access carrels as follows:

1st -	"I had no reason to use them."	47.58%
2nd -	"I preferred something else."	13.17%
3rd -	"I don't use the resource center."	12.61%
4th -	"I didn't have time."	8.53%
5th -	"The equipment wasn't working."	8.44%
6th -	"I didn't know how."	6.54%
7th -	"I didn't like what I heard about them."	3.13%

The 1,109 girls responded as follows:

1st -	"I had no reason to use them."	43.55%
2nd -	"I don't use the resource center."	13.44%
3rd -	"I preferred something else."	11.27%
4th -	and "I didn't know how."	
5th -	"I didn't have time."	10.82%
6th -	"The equipment wasn't working."	8.12%
7th -	"I didn't like what I heard about them."	1.53%

Implications regarding more effective orientation procedures are certainly apparent when 6.54% of the boys and 11.27% of the girls do not know how to use the carrels. It would make an interesting study to compare student ability to use the dial access carrels with their ability to use Readers Guide or some other standard reference book.

The analysis by grade levels indicated "I had no reason to use them" as the reason most frequently mentioned by all grades. The 9th and 10th graders ranked "preferred something else" as second. The 11th and 12th graders ranked "I don't use the resource center" as the second most frequently mentioned reason for not using dial access. This latter reaction was confirmed by interviews with students who discussed preferring the student lounge to the resource center because of the additional opportunity for informal activities, discussions, and loafing or "goofing off."

The differences among the four schools were of no significance with one exception. Boltwood School students were the only ones who ranked "The equipment wasn't working" as high as third in the list of reasons for not using dial access.

The reasons for not using dial access require further study by departments and by the newly re-organized Depart-

ment of Media Services. Additional data needs to be collected. Further study of the relationship between incidence of certain responses and operational procedures should produce fruitful results that can affect media services, and more importantly, the instructional patterns of the school.

In addition to the statistics on use and the questionnaire on student attitude, further evidence was collected during interviews with 250 students, representing a sample with the same composition as the entire student population. The interviewer was a former ETHS teacher with knowledge of the media field.

The users interviewed responded to open-ended questions relative to general impressions, technical problems, sharing information with others, reasons for using, and recommendations for improvement of the dial access system.

General impressions were reflected in comments such as these, quoted verbatim from the taped conversations:

"Good that you put money into this"
"Africa was good, like regular TV."
"No noise so it was better than class"
"It did help because I could do it when I wanted and didn't have to sign up for an appointment with the teacher."
"I like it when I've finished my homework."
"I like to rerun it when I missed."
"It's OK--I mean there's stuff you don't find in books."
"It's just about what I thought it would be."
"It cleared up things I wasn't clear about in class."

"This is easier for teachers when they're busy with something else."
"You remember it more that way."
"Good-- teachers don't have to go over it"
"Lots of stuff on SAT and CEEB no one told me before"
"A way of studying on your own--we're lucky to have it"
"Pretty good when the teacher doesn't have time"
"Easy for teachers"
"It's cool--wish we could have more video."
"Takes the monotony out of reading"
"I don't know where it comes from or how it works--but it does."
"My senior brother is sorry he didn't have it as a freshman."

More negative reactions are reflected in these quotations from dial access users:

"My teacher said pictures are too juvenile."
"I was afraid to use it; it was too modern." (senior girl)
"Anything that can be shown on dial access can be taught in class."
"It wouldn't hurt if we didn't have it."
"Just hearing it is too hard to follow-- it didn't get through to me."
"It's just to pass time."
"From the amount I've used it, I could take it or leave it."
"It's just another thing Evanston has."
"You can't go back to ask questions."
"It's too impersonal."
"Better than doing nothing"
"Couldn't take notes because the tape kept going"
"Most students spend time in the cafeteria rather than come here."
"We're lazier and have other things to do with our time. Juniors and seniors don't think they need it." (junior boy)
"No help at all"
"Upperclassmen can analyze reading more-- don't need tapes."

"Cost of dial access would support freshman athletics" (interviewed the day after budget cuts were announced in the Evanston Review.)
"I haven't gotten anything out of it. Should get better tapes that have nothing to do with homework--should get that in class."
"I don't think teachers are using it enough."
"Juniors and seniors are too worried about college to use dial access."
"We don't have time. Freshmen can become accustomed to it."
"Didn't help me as much as a teacher would"
"I learned stuff but not for tests."
"I don't think it is important to use it."

Student attitudes toward technical problems were revealed in these comments selected from the taped interviews:

"Sometimes the tapes messed up, but when it did work, it was good."
"No technical problems"
"I didn't know how to use it, but my girl friend showed me."
"No problems after the first three months"
"No problems if you follow directions"
"They'll get it worked out."
"I don't like the humming like a bee."
"I haven't had problems but I know someone who has."
"I've had troubles, but I just keep trying."
"Instructions are right there--no problem."
"Just once--and that time I did something wrong"
"School sure goofed when they put in two systems--the new one has a ping which is awful."
"I tried 12 times before I got an English lecture."
"The mechanical bugs are disgusting."
"It's easy to get a headset and kick others out of a seat."

Although the answers to the questionnaire indicated that students rely heavily on other students for infor-

mation, the comments during the interviews did not reveal any significant amount of enthusiasm for sharing the dial access experience with their friends. Typical comments were of this nature:

"I told a friend outside of school about the one on alcohol."
"Fess and me always look at the same programs so I tell him."
"My friends started using it to keep from getting kicked out of the resource center so I told other kids."
"Never talk to my friends about it"
"I recommended the music ones."
"I have told a lot of my friends, but they don't use it."
"I have suggested it to kids needing math"
"I discussed CEEB information with my friends who didn't know your school record was so important."
"Most kids think there's nothing on but algebra."

Recommendations for improvement given by students during their taped interviews referred to both content and to operation:

"Teach kids not to fool around."
"Schedules should not be limited to morning or afternoon."
"Publicize or post schedule in reg room or on resource center door."
"Take a survey to see what kids need."
"Should have more pleasure programs"
"Tape English lectures"
"Should include things not in courses, like getting a job or going to college"
"Have programs about things you don't learn at home or teachers don't discuss, like sex education."
"Have more visual programs"

"Make carrels wreck-proof, but I guess you couldn't do that."
"Have advance programming so you'd know what's to be on."
"Don't need so many carrels--the kids don't use them." (Contrast this with teachers' comments that 50 carrels for 5,000 students makes a meaningful program impossible)
"Tell us what it's all about."
"Keep it working-- that would be better."
"Make the screen bigger."
"Have video for algebra"
"Have total stuff in library on dial access."
"Have something for slow readers"
"More writing space needed"
"Students and teachers need more exposure" (to dial access, presumably)
"NET station should be on all day."
"Have a student board"

The interviews with non-users were less productive. In the first place, they were reluctant to keep their appointments for the interview, and secondly, because they had not used the dial access system, they had less knowledge on which to base their opinions.

However, the following comments from non-users reveal flaws in the channels of communication and in the orientation of both students and teachers:

"No reason to use it"
"I think it would be helpful. Class is boring. I wouldn't mind using it."
"It wouldn't do me any good."
"I never have time."
"No teachers recommended it so I didn't use it."
"I don't know where it is. If I saw it, I didn't know what it was."
"I haven't dealt with the resource centers."

"They should make it known. I didn't know anyone could use it. I thought it was reserved for certain classes."
"I've never seen the schedule."
"I'd rather play cards downstairs. There's been no incentive to try it."
"Is it that little TV? I've always wondered what that was."
"I haven't been sick so I haven't needed it."

The fourth type of data collected in the identification of student attitude was the study of the 13 most frequent users, those who had used dial access 20 or more times. Ten of these were boys; there were no seniors in the group; one sophomore, two juniors, and ten freshmen. The group included no students from Beardsley School, one from Boltwood School, four from Bacon School, and eight from Michael School.

Interviews with eight of the thirteen students who were willing to report for an interview result in an overall impression of a student average or below average academically, shy, quiet, using dial access for help with homework, only casual in any expressed enthusiasm.

"Pretty good"
"I study the schedule and write in my notebook what I want to see."
"Helps me with my problems"
"Should have more science and math"
"History is best--mostly homework."
"Easier than reading"
"Use dial access for history homework but only when assigned"
"Not helpful but interesting"
"Mechanical and scheduling problems have delayed me."

"I'm a better listener than reader. I get good grades on assignments I listen to."
"I use it for Social Studies; it's not easy to get that from books."
"I just use it for my own benefit"
"I liked the Talk About series."

Consultations with counselors confirmed the impressions gained from the interview tapes as illustrated with these examples:

Boy #1: Failing two subjects; highest grade in Art; academic pattern difficult to figure out.
Boy #2: Above average student; uses dial access to keep Algebra marks up.
Boy #3: Counselor says dial access may be the only worthwhile thing his year has had; attends no classes; has passed no courses; has done everything to be unsuccessful; has brother who is the same.
Boy #4: Quiet, cooperative, has no activities; grades low even though he is enrolled in two freshman honors classes.
Boy #5: A blind student; uses dial access to supplement class work.
Boy #6: Student from Jamaica; test scores low; good attendance; likeable; uses dial access to supplement class work.

Girl #1: Shy; has perceptual problems; conscientious
Girl #2: Test scores low; average student.
Girl #3: Good citizen; sincere and conscientious; average student.

Boy #7, a Michael School freshman failing two subjects, used the carrels 69 times. He included these comments in his interview:

"Driver Ed was my favorite--the ones on decisions drivers make."
"History I did only on assignment."
"Math I did voluntarily because I wasn't doing so well."

"Only once have I had any technical problems."
"The beep hurts my ears."
"I study the schedule in the resource center."
"I think it's pretty good--we're fortunate to have it, I guess."

The student who had used the carrels 40 times was a Michael School junior who left school and returned during the year, a pattern of attendance he has maintained during his school years. The counselor expressed the opinion that dial access had made a positive contribution to his education. The student himself had definite opinions and recommendations:

"I look at Social Studies every week because I like to learn more than we are studying in class."
"I learned about it because I work in the library."
"I study the schedule."
"Teachers don't bother even to look; they just rush too much; they don't work with kids."
"I don't like audio tapes--they bore me."
"It's pretty good help."
"The set-up could be improved--it doesn't come through half the time."
"There should be more on health"
"There should be more for juniors and seniors on getting out of school. They don't want to experiment--they're getting out."

In general, the 13 students who used dial access fall into two categories: 1) the conscientious, slow learner who uses the tapes for needed assistance; and 2) the "uncommitted learner" with a record of unhappy and unsuccessful school experiences who uses dial access to "kill time" as an evil to be preferred to class attendance.

The questionnaire, the use chart, the interviews, and the study of the records of the top 13 users reflect in general the attitude expressed by one student: "I can take it or leave it." After less than one year of operation, it would be a hasty generalization to conclude that student attitude is either favorable or unfavorable to any significant degree. They can take it or leave it.

Objective 4: The identification of relative effectiveness of various kinds of mediated instructional materials

Procedure: With the assumption that frequency of use indicates some degree of satisfaction with the product, a tally of use of each video tape and each audio tape for a period of 18 weeks. Chart 13 gives the average number of users for each available audio tape and each available video tape.

On April 15, 1970 a preliminary report on the comparative use of audio tapes and video tapes was presented to the faculty in a special memo with these comments from the Title III staff:

> "Certain findings of our as yet incomplete evaluation study of dial access are of interest to you as you plan summer projects and other instructional materials.

> For every audio tape on dial access we averaged 7.6 listeners per week; for every video tape we averaged 41.3 viewers per week. This difference is even more significant when you consider two additional factors: 1) most of the time only a fraction of the video carrels were operating; 2) many times video programs were available for morning or afternoon only.
>
> Are video tapes better instructional materials? Do teachers prepare them more carefully? Are our students "visual literates"? We have some important questions to answer here."

A second examination of the effectiveness of mediated materials was based on the student questionnaire with reference to question # 5: How helpful were the tapes?

Results: From the study of Chart 12 it appears evident that video tapes have more use than audio tapes, and on that basis can be considered more effective. Each video tape was used about 6 times as often as each audio tape, Chart 14 gives the data compiled from the student responses to the question: "How helpful were the tapes?

Of the 2,384 students who responded to this question, 24.16% indicated the tapes were not at all helpful; 58.41% indicated tapes provided an average amount of help; 17.37% indicated the tapes were very helpful.

The students who found the dial access tapes most helpful were most numerous in the 11th grade of Beardsley School.

The five groups with the highest percentages of students rating tapes most helpful were as follows:

Beardsley	11th grade	24.85%
Beardsley	10th grade	21.67%
Beardsley	boys	20.99%
Bacon	9th grade	20.83%
Michael	boys	20.40%

The groups with the highest percentages indicating that programs were not at all helpful were as follows:

Boltwood	12th grade	44.56%
Boltwood	10th grade	33.75%
Boltwood	boys	32.46%
Boltwood	girls	32.41%
Bacon	12th grade	31.41%

Boltwood School had the smallest number of viewers throughout the period of measurement. If a cause-effect relationship exists, the fact that so many Boltwood students found the tapes not at all helpful could explain the low incidence of use. Or there may be a relationship between rating a program helpful and equating help to help on an assigned lesson. Boltwood School was second high (Michael being first) in the percentage who used dial access for assigned viewing rather than voluntary or recommended. Further study would be needed to determine whether or not the low incidence of use caused students to indicate they had not been helped by the tapes.

These figures generate a series of questions which the school should explore with further research. Which

programs were most helpful to whom and under what circumstances? What was the format of the most helpful tapes? Were they listed as "helpful" because they were required to pass a test? What is the relationship between voluntary viewing and the help received? Certainly additional funds and time should not be expended on the production of additional materials until a careful study has been made to determine the different effects achieved by these materials. Research on the comparative effects of the media in relation to specific objectives is available through ERIC at Stanford University, but at the present time no evidence has been presented regarding locally prepared materials, designed for specific objectives to be achieved through independent study. During the project period such research could not be conducted because of time limitations and numerous random factors which could not be controlled.

The interviews with the cross-section of student users provided little additional information regarding the effectiveness of the materials. The comments of the students confirmed the evidence collected in other ways:

"It's helpful to those who take advantage of it."
"If students would use it, they'd get higher, grades."
"Not too helpful"
"Pretty good--enjoyed--learned"

"Some video tapes are really not that good."
"I think it's good; they'll learn better."
"Can be a help to an extent"
"Good because you can play it over and over if you need to"
"You could learn it just as well from a lecture."
"I learned but not for tests."
"Didn't help me as much as a teacher would"
"I still remember it now."
"Parts I really understood were video."
"Lots better than listening to teachers-- no interruptions"
"Helps you get an ear for the language"
"Cleared up things I wasn't clear about in class"

Several unsuccessful attempts were made to use a pre-test and a post-test measurement of effectiveness with an entire class, but in each instance the unreliability of the equipment and/or the limited number of available carrels made it impossible for the teacher to require students to use a tape within a certain time period. This type of measurement may be possible next year when closed circuit television provides for large numbers of students to view simultaneously.

The effectiveness of Super 8mm cartridges on portable projectors in Science and Business Education classrooms cannot be evaluated until films have been completed. A few are currently in use, and more should be ready for use in the fall of 1970.

At the beginning of the project it was thought that a study of applications for summer curriculum projects

for 1970 would indicate which types of materials teachers considered most helpful. Drastic school budget cuts limited available funds to a minimum so that no meaningful relationship between requests and effectiveness could be observed.

Some evidence as to effectiveness can be obtained from the number of uses of tapes. However, any tape for a required subject or an elective with a large enrollment is likely to have a higher incidence of use than a tape for an elective chosen by only a few students.

Chart 15 presents the tallies of the program use for 15 weeks. Social Studies, Girls Physical Education, Combined Studies (English and Social Studies) and Driver Education have large enrollments and a high frequency of use. Algebra tapes were requested by teachers more than any other tapes, but the incidence of student use was low, a factor which led some teachers to request the tapes for their classrooms next year to enable them to supervise the use of these materials.

The general conclusions are three: 1) Video tapes are more in demand by students than audio tapes, 6 to 1. 2) Tapes related directly to assigned homework seem to be more effective. 3) Use of the tapes for independent study is nonexistent as far as it can be determined.

Chapter I - Effect on Clientele

No report of effectiveness would be complete without reference to the use of dial access by the educable mentally handicapped students. One carrel was installed in their department. Their chairman had a summer project in 1968 to prepare material especially for these students. Her report on the effectiveness of this method of instruction follows:

> "The dial access carrel in the Department for Educable Mentally Handicapped has been in almost constant use since its installation.
>
> Research has proven that although this type of handicapped student will never read as extensively as other students, they do learn from seeing slides and hearing tapes. The dial access as a new teaching method has been most effective.
>
> Title III allowed us to make our own tapes and scripts. This has increased the reading ability of many of our students as they listen to a tape on jobs while watching the script. Our own video tapes for Social Studies have been useful, too, as well as other video and audio materials not made particularly for EMH.
>
> All handicapped students have learned how to use the carrel with the dial access material while in their own department. With this knowledge they have been able to move out and use the carrels in their own resource centers when the one in the EMH department was in use.
>
> One brain damaged boy was only able to take a half day program. Later he became very familiar with the use of the dial access and enjoyed learning from it. Furthermore, his frustration of working with others was lessened and now we have recommended a full day program for him. This was partially due to the help he received through

the dial access." (Mrs. Margaret West)

Objective 5: Identification of teacher attitude toward mediated instructional materials.

Procedure: With the assumption that use and production of materials indicates a favorable attitude toward the materials, data was collected in the following areas: 1) a study of teachers preparing materials during the two summer workshops and during the school year; 2) a study of teacher requests to have materials placed on dial access and on portable media equipment; 3) interviews with a cross-section of teacher users and non-users; 4) a study of teacher attitudes toward mediated materials and an analysis of background of teachers with different attitudes. This latter (4) study was made by a graduate student at Northwestern and is included in this report as submitted for his work there.

Results: Chart 16 reports teacher requests by schools. Michael School, which had the highest student use, also had the highest number of teacher requests for videotapes on dial access, the highest number of teacher requests for playbacks and recordings in classrooms, the highest number

of requests for closed circuit television and off-air recordings. Bacon School faculty exceeded Michael School in the number of requests for audio recordings on dial access (This was due to the large number of PC Algebra tapes), but Michael School was second, even in this category.

In the total number of video and audio requests for dial access, Boltwood School, which had the smallest number of student users, also had the lowest number of teacher requests. Boltwood School also had the lowest number of requests for closed circuit television and the highest number of requests for portable Sony record and playback equipment and for video recordings. The latter can be explained by the fact that the teacher of Television Production is in Boltwood School and his requests for his class were callied in that school.

There seems to be evidence to support a theory held before the project started that student use is in direct proportion to teacher involvement in producing, selecting, and assigning tapes.

Chart 17 lists the number of teacher requests by subject areas. Social Studies with 68 and Mathematics with 57 had the largest number of requests for audio tapes

between October 27, 1969 and May 15, 1970. Social Studies with 20 was also highest in requests for video tape on dial access; second was Counseling with 14, and third was Mathematics with 12. Speech Arts with 33 had the most requests for closed circuit playbacks; English was second with 29, and Social Studies third with 23.

Related media equipment was requested as follows:

1)	Sony record and playback:	10 departments requesting Science - 20 requests English - 9 requests Speech Arts - 9 requests
2)	Off air television:	5 departments requesting
3)	Audio recordings:	12 departments requesting Administration - 15 requests Social Studies - 10 requests
4)	Audio dubbings:	12 departments requesting Social Studies - 10 requests Driver Education - 6 requests
5)	Audio playbacks:	8 departments requesting
6)	Projectors:	No accurate record could be kept on these as some were checked out to departments, such as cartridge film projectors and tape/slide combinations. Others were signed out through the library and the resource centers.

In the number of requests for dial access and all related media equipment, Social Studies teachers led all other departments.

Chart 18 lists by departments and schools the 71 teachers who produced materials which were listed in the catalogue of mediated instructional materials as part of the Title III project. The difference among the schools is not significant but Michael School again led the three schools with 19 teachers producing materials; Beardsley had 16, Boltwood 15 and Bacon, 11. Materials were prepared in two summer curriculum materials projects (4 weeks in 1968 and 6 weeks in 1969), during released time within the regular school schedule, during teachers' unscheduled "mods", and after school.

As might be expected the largest departments had the most teachers involved. Speech Arts led the list with 9 teachers producing materials, a situation partly explained by the fact that Television Production is taught by three teachers in that department. Science, with 7 teachers involved, was second. Much of the science material was film to be used on portable equipment in the laboratories rather than on dial access. Social Studies and Foreign Language were next, each with 6 teachers involved in the production of materials. As with Science, much of the material in Foreign Language was prepared for use in the dial access language laboratory rather than in the resource center carrels.

Chapter I - Effect on Clientele

Certain factors which cannot be controlled, identified, or measured during the time of the project, cannot be discounted entirely as they obviously affect teachers' attitude toward preparing and using mediated materials:

1) Desire to be gainfully employed with a project during the summer

2) Reluctance to expose teaching materials to the scrutiny of colleagues and to public scrutiny

3) Reluctance to prepare materials which may be used by less industrious teachers

4) Desire to prepare software which is being sought in an increasingly competitive commercial market

Personal and professional standards, not USOE projects, determine the extent to which these factors affect teachers' attitude toward mediated instructional materials.

Discussions with teachers during the three years revealed certain definite attitudes prevailing:

1) Disillusionment and frustration with technical breakdowns.

> "Frankly, many teachers, including myself, are disgruntled and discouraged. Rather than being able to assign these materials to my students, I have to say, 'If it works.' Students are really--and I'm not the only one to notice this--coming to think of the system as a joke. Teachers are trying to incorporate the system into their teachings, but under such conditions it's not too easy."
>
> Social Studies teacher

"I tell my students they are required to listen or view specific programs and give them dates when the tapes are available. I then give them a short quiz on their listening. I have experienced no scheduling difficulties. I know of no great success or failure stories, but have generally observed that kids like the change of pace given them from books."

Social Studies teacher

"I have used only audio tapes. They are not assigned. I simply inform the students of the tapes availability. Few listen to them. It is gratifying to hear from those who have listened to the tapes that they found them helpful. I have heard from students not in my classes who listened to the tapes and found them helpful."

Combined Studies teacher

"I find it hard to plan almost a week in advance what to order. I would like to be able to order on one day notice, or better yet, whenever needed(like Conn.). It is quite troublesome for some students to sign out headsets, get printed materials, find the right dial access number, and find a carrel that is working correctly."

Mathematics teacher

"Tapes scheduled to be on are removed without notification. Tapes are suddenly put on viewing for afternoons only."

Social Studies teacher

"I have had particular problems in using visual portion of the programs due to mechanical failures."

Social Studies teacher

"I don't assign tapes. I just announce when certain tapes are available. The only check is when students come to me with comments. There has been no problem getting the correct tapes at the correct times. I have had several students tell me that the tapes helped tremendously."

Mathematics teacher

"We use Focus on Home Economics ... at least once a month. Also used it with all freshman classes (10) to introduce department facilities. We used Story of a Baby in 13 classes as well as for individual viewing."

Home Economics teacher

"Title III materials are being used very little."

Combined Studies teacher

"Up to now they have not been used because our machinery has not been set up. It is now in the process of being installed."

Industrial Arts teacher

"Due to technical problems the materials are being used very little."

Science teacher

"We are fortunate in having a well trained musician on the TV staff which makes it possible to combine to good advantage the musical concepts in the widest possibilities while realizing the technical limitations and opportunities."

Music teacher

"The Sight Singing tapes are being used to present all the information in this course. The only teacher contact is once a week for one mod which is used for evaluation. It is projected that a controlled study involving this course will be in full operation next year. All incoming freshmen will be released one three mod Glee Club meeting per week in order to be a part of either a control or an experimental group." Music teacher
(N.B. This was written two years ago. The study could not be made as anticipated because of equipment problems.)

"The kind of teaching and learning opportunities which are being made possible by the Title III Grant provide previously unknown incentives for everyone involved."

Music teacher

"I have made 'before' and 'after' video tapes of students working to improve their articulation. Results have been especially dramatic with problems associated with lisping and stuttering."

Speech teacher

"There are three films on swimming that we have prepared for dial access. So far not one has been used...because the system has not been working. The life saving should be used this April and May because that is when the course is being offered; however, it does not look like I will be able to use it unless the system is working effectively."

Girls Physical Education teacher

"I have used video tapes 32 times this year to establish or reinforce concepts, to act as a stimulus for discussion, and to illustrate concepts taught in class."

Social Studies teacher

"Will be used more and more as teachers become acquainted with the potential."

Boys Physical Education teacher

"The tapes are being substituted for me, so I can take on other lectures and chores."

English teacher

The conclusion justified by these comments is a rather obvious one: Aware of the potential and willing to use good instructional materials if they are easily accessible, teachers are understandably reluctant to rely on any technology so undependable as the dial access system.

Further evidence of teacher attitude was obtained from a series of personal interviews taped by the same

interviewer who talked with students. The interviewer summarized the comments of non-users with these three most frequently mentioned reasons given by teachers for not using dial access:

1) Lack of reliability of equipment
2) Not enough carrels available
3) Not enough channels for programming

Each of the following quotations from the taped interviews deserves careful study to determine the validity of the complaint and the steps which can be taken to correct the difficulty:

"It's a step backward because we can't depend on it."
"Too limited"
"Tried to use it but too many technical problems"
"Not good. Kids say, 'What's new about TV?" They're blase now about that sort of thing."
"I have some faith in programmed learning, but---"
"I would use it if given time and money."
"If it could be demonstrated to me that it can do something---"
"I haven't been sold on the service."
"I just never think of it."
"It's no good. It depends on a student going on his own."
"I want credit, recognition, and money. It can't give me any of these."

Because the newly reorganized Department of Media Services (see charts 19, 20, 21) intends during the 1970-71 school year to provide improved media services, the comments made by teachers during the taped interviews were carefully analyzed and divided into three general categories for further study in planning the 1970-71 program:

1) Use of dial access and commendations

2) Problems and criticisms

3) Recommendations

Typical of the comments regarding its use and commendation are these statements quoted directly from the teacher interviews:

"Used as a supplementary teaching aid"
"To replace orientation"
"To reinforce class work"
"To make up for absence"
"To save class time"
"Used when can't get live person to come in"
"Should free me to do in class things that have to be discussed--how to make decisions when there are no easy answers"
"Factual materials can be handled by machines"
"As individualized instruction"
"Can repeat as often as necessary--one of the strongest points!
"Used for English correction form. There was improvement."
"For extra help. Kids say it helped."
"Would use it if given time and money"
"Video especially good"
"I used tapes one 9 weeks and did without one 9 weeks. The programs of students and organization were better the 9 weeks they saw the examples on tape."
"Has great possibilities, but we're a long way off"
"Remedial and additional work via a gimmick is great if it works."

The problems and criticisms expressed in the taped interviews were typical of the comments made directly to the Title III staff during the three years of the project:

"Lack of time to prepare materials"

"Small number of tape decks"
"Discouraging to see so little use of it"
"Students don't use Algebra tapes even when you take class time to show them how to use the carrels."
"Lack of dependability caused enthusiasm to fade."
"Requests have to be in too soon."
"The monotone of some instructors is deadly."
"Kids at carrels are doodling or studying, not using dial access."
"Not feasible to have large groups use it-- not enough carrels"
"The kind of teaching most important to me cannot be done on tape."
"Resistance to taking on a new project-- have enough other problems."
"Our department hasn't developed programs."
"It has a bad effect on kids to be so frustrated with technical problems."
"Not enough teachers are involved in preparing materials under their own initiative."
"It takes too long. It took me four hours to prepare 15 minutes."
"I would surely like to know that in the fall all would be working."
"It's almost a joke it's so undependable."

The staff is in the process of reorganizing and revamping some of the precedures to improve the service to teachers after the criticisms expressed in these comments:

"It's too big a deal to get technical assistance."
"I have not felt welcome in the Media Center. Everybody there is so involved in his own thing that I feel like an intruder."

"I was disappointed with media services."
"I've waited 9 months to record a video script."
"I can get no technical help."
"If it's not available <u>now</u>, forget it. I can't wait for them."

Chapter I - Effect on Clientele

The following recommendations for improvement of the operation were taken from the teacher interviews. Some have already resulted in corrective action; others are being considered. Still others are not within the control or province of the media staff and have been referred to the departments directly involved.

"We need tapes for low ability and EMH."
"We need to expose students to all kinds of materials."
"It was better when carre's were near the teachers' offices in the resource center."
"Dial access should be in the math clinic rather than in the resource center."
"We should have the tape schedule on the screen like they do in West Hartford."
"We should have more material for slow, non-motivated learner."
"We need an in-service training program."
"Teachers have to work with kids on how to use it."
"Kids should make tapes."
"The principals must be committed to it. They must give time and push teachers into it as the supervisors do."
"Shorter than 15 minutes is best for tapes."
"Tapes should be longer."
"Should record more from the air"
"Should be used for enrichment"

The consensus of faculty comments is that

1) if the equipment could be relied on, I'd use it;

2) if it could be demonstrated to me that it offers something, I'd use it;

3) if I were given time (and in some cases, remuneration), I'd prepare instructional materials.

Chapter I- Effect on Clientele

The interviewer for the prcject, a former ETHS teacher with a knowledge of media, gave these three general impressions after completing the interviews:

" 1. Need for orientation about dial access

> Almost without fail, students remarked that they had no formal information presented to them about the system. They had questions regarding why we happen to have dial access here, where we get the programs, who makes the programs and how the set-up functions. They would like tours of the facilities in the Media Center. Even a printed handbook which would be available to students might be helpful (assuming that students would read it).

2. Need for publicity about what programs are available

> Many students seem to feel that no programs are available except course-related programs; therefore, many who say 'I don't need it' may be overlooking programs which would be of use to them.

3. Student apathy toward dial access

> Much student attitude is something less than enthusiasic. Students accept dial access as if it were a common and ordinary part of every school. No one is awed with it. Many are not even curious. Adults I talk to about it (apart from ETHS teachers) are amazed that such a "critter" even exists, much less in our midst."
>
> (Mrs. Doris Rudy)

Obviously, the faculty members most closely associated with the dial access operation are the four resource center librarians, who are "on the firing line" as students use the wet carrels. In February, 1970, Mr. Henry Urrows,

editor of Educational Television, asked the ETHS librarians this question: "Can you please tell us something more about the difference this system (dial access) has made in the work of the librarians?"

The project director answered his question as follows and submitted that answer to the librarians to amend or verify:

> "Supervising the carrels, checking out and keeping track of the headsets, directing traffic to determine who gets to use the carrels--all these have increased the work of the librarians and their paraprofessionals. Technical problems have been a big headache for them; vandalism requires constant supervision. And yet, I venture to say they all feel that (1) a library should be an instructional materials service center; (2) instructional materials must include media of all kinds; (3) dial access makes mediated materials more readily available than they otherwise would be. But let the librarians speak for themselves."
>
> Project director

> "I am pleased to have the dial access carrels. Our purpose is to have as many kinds of educational opportunities as we can: books, pamphlets, magazines, filmstrips, records--and to add this dimension to their experience is exciting. When there are moon shots, special events--our kids see it when it happens. Our biggest concern is that somehow it's already 'old stuff'--and it is not getting the use we wish for. Vandalism is a problem--but the kid that is marking up the TV set, or poking holes in the mesh screening is the same one who writes 4-letter words and tears out the article he wants from the encyclopedia. His whole value system is a little awry. Since the use has not been that excessive, it has not been that much more work to keep track of."
>
> Beardsley Resource Center librarian

"Dial access provides an additional opportunity for librarians to enlarge the world of the students they serve. We can suggest particular tapes that the students can use for purposes of enrichment and it (video tape) really places a student in the middle of the action".

Bacon Resource Center librarian

"My only addition to the above statement would be that many students need a variety of media to help them in their course work and in their own independent pursuit of knowledge. For some, reading the printed page without some other approach such as video or audio presentations would not be satisfactory. Many of these students benefit from the use of these means of communication both to reinforce classroom presentation and to supplement it."

Classroom librarian

"Increased opportunities for vandalism; technical problems which need constant repairing; promotion of use an added necessity; priority of use hard to determine. New problems at this time not equalled by frequency of use, indicating the need for some intensive in-service with teachers to encourage use. This in-service should be built into program more effectively. It is available, but teachers have not responded as yet."

Boltwood Resource Center librarian

"Supervision of the carrels, technical problems, and vandalism have added to the work load of the resource center staff, but the arrival of dial access has also created an opportunity for our staff to provide greater in-service education for our faculty in the application and utilization of media. Through dial access we have the capability of reaching more students than with conventional AV equipment. Dial access is opening new doors for the growth of the non-verbal, unmotivated student as well as for the academically independent learner who functions well in our center."

Michael Resource Center librarian

A study of teacher attitude toward mediated instructional

materials and possible explanations for the attitude was made by Professor Allan Jacobs, Chairman of the Department of Communications, Loyola University, New Orleans, Louisiana, while a doctoral candidate at Northwestern University during 1969-1970. The study, which was part of a class project, included other schools in the Chicago suburban area, but the report included here, contains only the data collected regarding the ETHS faculty.

The report follows on the next page.

"A Study of ETHS Teacher Attitude Toward Mediated Instructional Materials"*

by Allan T. Jacobs

A great majority of teachers responding to this survey teach in the area of the humanities which was also their major subject area in college. The second area, but well behind the humanities, is physical science. Twenty-six teachers out of 164 who responded to this question produced or were instrumental in the production of video tape lessons at Evanston Township High School. Of those people who made video tape lessons, the majority recorded more than one but not more than four. Far more of the teachers responding to this survey produced or were instrumental in the production of audio tape lessons, this figure being 49 out of 166. Of these people who made audio recordings, the majority made more than six recordings. Apparently, there was either a greater interest in making the audio tapes, it was more feasible from the standpoint of time and facilities to make them, or there was greater possibility of usage. Fifty-five out of 163 respondents have assigned required lessons on the Dial Access system to their classes and those who made assignments generally seem to have assigned between two and four lessons. The overall evaluation of the teachers use of Dial Access from the standpoint of the students was that it was slightly helpful. The "very helpful" category received the least votes by these teachers--24; "slightly helpful" was indicated by 44; "not very helpful" by 37.

*This study was based on 166 responses to a questionnaire submitted to ETHS faculty by Mr. Jacobs while he was doing graduate work at Northwestern University during the second semester of the 1969-70 school year. Mr. Jacobs is chairman of the Department of Communications at Loyola University in New Orleans.

Sixty-six teachers have indicated that they have used other forms of non-print media material in teaching their classes. The greatest single use of non-print media materials, other than Dial Access, was with the overhead projector where 59 teachers indicated that they have used this. The next heaviest use was of 16 mm film with 39 respondents indicating this usage. Records and filmstrips each were indicated by 30 teachers. The majority of teachers using non-print media aids have used these in 10 to 15 classes, indicating that those teachers who have gone to the trouble of using media aids have used them considerably. Those teachers who have not required the use of Dial Access and have not used non-print media materials have indicated that their primary reasons were that the lessons were not available on the proper subjects and did not fit their lesson plan and the teacher was uncertain how to use these aids for best results. None of the teachers indicated that they had declined the use of Dial Access and non-print media materials on the basis that students did not seem to like it. Those teachers who have required the use of Dial Access and have used non-print media materials indicated that they felt these aids were stimulating to class discussion and students seemed to like it. It is also interesting to note that the teachers using these aids apparently feel that the aids are especially helpful to students who are slow learners. The teachers did not indicate by their response that it was especially helpful to students who were fast learners.

And now for some information about the teachers themselves. The great majority of teachers responding in this survey are of the age group 22 to 35. They are almost evenly split between male and female and the great majority are married. The majority of these teachers have children who are already of school age, 24 having children between ages 7 and 12,

and 23 between ages 13 and 18. Thirty-six other teachers indicated that they have children between ages one and six.

The majority of teachers do not watch television more than four hours per week with the first two categories on this survey of one to two hours and three to four hours per week receiving, respectively, 47 and 50 responses. The responses declined as the number of hours indicated increased. On the average, the teachers responding to this survey do not usually go to the movies more than twice a month and the number of "no response" on this question, plus notes that some of the teachers wrote on their answer sheets, would seem to indicate that many of the teachers attend movies less than once per month.

Most of the teachers surveyed seem to be from the middle west region of this country and also went to college in this same region. The majority of teachers received their undergraduate degree within the last 11 years and the majority of teachers have Master's degrees. One hundred twenty teachers have Master's degrees, 44 Bachelor's, and two Doctor's out of the 166 responding to that question. Thirty-three teachers out of 164 indicated that they had courses in college in the study of television, radio or film but very few of them had more than two courses of this nature.

Television was used in teaching in high school in a small minority of cases of these teachers. Many of them indicated, however, that some courses which they took in college were taught in part by television, and the majority of the teachers, 122 out of 161, indicated that media materials other than television were used in some of the courses which

they took in college. Almost half of the teachers responding indicated that in college individual carrels for study by audio tape playback were available to them.

In analyzing the results of this survey, it seemed to me that question No. 10 is a key question. That question reads "Have you assigned any required lessons on the Dial Access system to your classes?" Fifty-five teachers indicated that they have assigned required lessons on the Dial Access system to their classes. I isolated these 55 answers and retallied the answers to this survey for those 55.

Now, let me report on the findings that I have on those 55 who did make use and required use of the Dial Access system at Evanston Township High School. The majority of these teachers are in the humanities area which was also their major subject area in college. Almost half of them produced or were instrumental in the production of video tape lessons at ETHS and two-thirds of them produced or were instrumental in the production of audio tape lessons at ETHS. The majority of these 55 teachers assigned from two to four lessons as requirement on the Dial Access system but their evaluation of the use of Dial Access by students corresponded to the evaluation of all teachers answering this. They felt that the Dial Access was slightly helpful.

The second category in the case of teachers requiring this, however, was different from the second category of teachers not requiring it. The second category of these 55 was "very helpful," as compared to the second category of the other teachers which was "not very helpful."

Of this select group of 55 teachers, only four answered that they have not used other forms of non-print media materials in teaching their

classes. Fifty of them indicated that they have used non-print media materials. One of these 55 did not respond to that question.

Of the non-print media materials, again, the overhead projector was the favorite but only very slightly ahead of 16 mm film and with records and filmstrips next in order. A large number of these teachers used non-print media aids in 10 to 15 classes and the great majority of them used non-print media aids for five or more classes.

This select group of 55 teachers who have required the usage of Dial Access at ETHS were in agreement with the rest of the teachers regarding reasons that were important to them for this usage. First of all, they felt that students seemed to like it and also that it was stimulating to class discussion and was especially helpful to students who were slow learners. Another strong reason was that the teachers used presentations which they had personally produced or helped to produce.

The age bracket of these 55 teachers is 22 to 35, indicating that apparently it was the younger teachers who were the more active in requiring Dial Access and in producing video tapes and audio tapes. They were evenly split between male and female. The majority were married but there was a larger percentage of single teachers and divorced than in the overall group. These teachers have a larger number of young children between ages one and six and they seem to watch more television for entertainment and go to movies more often than the other teachers. Most of this select group watch television one to four hours a week but many of them watch between seven and 15 hours per week. The majority of them attend the movies one to four times a month although none of them seem to go to the movies more than four times a month or, perhaps, once a week.

They are mainly from the Middle West and went to college in that same region. They have a higher degree of education than the average, 46 out of 55 having a Master's degree. Eighteen of them had courses in college in the study of television, radio or film and of these people the average number of courses would seem to be no more than two. Very few of them experienced teaching by television in their high schools but in college nine out of 54 took courses which were taught, in part, by television. The majority of these teachers took courses in college which used media materials, and a much larger proportion of these teachers had available in college individual carrels for video tape playback as well as audio tape playback.

SURVEY OF TEACHERS
REGARDING USE OF MEDIA AIDES IN TEACHING
Administered by Allan T. Jacobs

The current phase of use of Dial Access and mediated instruction at ETHS will be concluded soon and evaluation studies are now being made. Your cooperation in answering this questionnaire accurately and candidly will greatly assist in the study of teacher usage and attitudes. The information you supply will be used only to compile comprehensive statistics and will not be examined for individual response.

Please complete this questionnaire as soon as possible and return it to the Title III office promptly. This questionnaire will probably require no more than four to five minutes of your time, but your answers are very important to the future of mediated instructional programs.

Instructions for completing the answer sheet:

Where the question calls for a YES answer, mark the space by number 1. For a NO answer, mark the space by number 2. In other questions, where there are up to five choices for the answer, mark the block numbered to correspond to the answer of your choice.

1. In what subject area do you teach?
   1. Humanities
   2. Physical Science
   3. Fine Arts
   4. Social Sciences
   5. Vocational Arts

2. Which of these was your major subject area in college?
   1. Humanities
   2. Physical Science
   3. Fine Arts
   4. Social Sciences
   5. Vocational Arts

3. Which of these was your minor subject area in college?
   1. Humanities
   2. Physical Science
   3. Fine Arts
   4. Social Sciences
   5. Vocational Arts

4. Have you produced or were you instrumental in the production of any video taped lessons at ETHS?
   1. Yes
   2. No

5. At any other high school?
   1. Yes
   2. No

6. If yes, how many?
   1. One
   2. Two
   3. Three or Four
   4. Five or Six
   5. More than Six

7. Have you produced or were you instrumental in the production of any audio taped lessons at ETHS?
   1. Yes
   2. No

8. At any other high school?
   1. Yes
   2. No

9. If yes, how many?
   1. One
   2. Two
   3. Three or Four
   4. Five or Six
   5. More than Six

10. Have you assigned any required lessons on the Dial Access system to your classes?
    1. Yes
    2. No

11. If yes, how many lessons?
    1. One
    2. Two
    3. Three or Four
    4. Five or Six
    5. More than Six

12. What would be your evaluation as a teacher of this use of Dial Access by your students?
    1. Very helpful
    2. Slightly helpful
    3. Not very helpful

13. Have you used any other forms of non-print media materials in teaching your classes?
    1. Yes
    2. No

14. If yes, which of the following have you used? (You may mark more than one, if appropriate.)

1. 16 mm film
2. 8 mm film
3. Filmstrips
4. Slides

15. In addition, which of these have you used?

1. Audio tape
2. Records
3. Closed-circuit TV
4. Overhead projector

16. In how many classes have you used non-print media aides?

1. 1-2
2. 3-4
3. 5-6
4. 7-9
5. 10-15

17. If you have <u>not</u> required the use of Dial Access and have <u>not</u> used non-print media materials, check which of the following have been important reasons for you. (You may check more than one.)

1. Necessary equipment not available
2. Lessons not available on my subjects
3. Did not fit my lesson plan
4. Am uncertain how to use it for best results
5. Students do not seem to like it

18. If you <u>have</u> required the use of Dial Access and <u>have</u> used non-print media materials, check which of the following have been important for you. (You may check more than one.)

1. Was stimulating to class discussion
2. Was especially helpful to students who were slow learners
3. Was especially helpful to students who were fast learners
4. Used presentations which I had personally produced or helped to produce
5. Students seemed to like it

19. Which of the following is your age bracket?

1. 22-26
2. 27-35
3. 36-42
4. 43-52
5. 53-65

20. Which is your sex?

1. Male
2. Female

21. Which is your marital status?

1. Married
2. Single
3. Divorced

22. Do you have children between ages 1 and 6?
1. Yes
2. No

23. If yes, how many?
1. One
2. Two
3. Three
4. Four
5. Five

24. Do you have children between ages 7 and 12?
1. Yes
2. No

25. If yes, how many?
1. One
2. Two
3. Three
4. Four
5. Five

26. Do you have children between ages 13 and 18?
1. Yes
2. No

27. If yes, how many?
1. One
2. Two
3. Three
4. Four
5. Five

28. Approximately how many hours per week do you watch television for entertainment?
1. 1-2
2. 3-4
3. 5-6
4. 7-9
5. 10-15

29. On the average, how many times do you go to the movies per month?
1. 1-2
2. 3-4
3. 5-6
4. 7-8
5. 9-10

30. In what region of the country did you grow up?
1. North
2. South
3. East
4. West
5. Middle West

31. Did you go to college in that same region?
1. Yes
2. No

32. If no, please indicate where your college was located.
    1. North
    2. South
    3. East
    4. West
    5. Middle West

33. When did you receive your undergraduate degree?
    1. 1925-1938
    2. 1939-1946
    3. 1947-1958
    4. 1959-1964
    5. 1965-1969

34. What degree do you presently have?
    1. Bachelor's
    2. Master's
    3. Doctor's

35. Did you have any courses in college in the study of TV, Radio, or Film?
    1. Yes
    2. No

36. If yes, how many courses?
    1. One
    2. Two
    3. Three or Four
    4. Five or Six
    5. More than Six

37. Was television used in teaching at your high school when you were a student there?
    1. Yes
    2. No

38. Were any courses which you took in college taught completely by television?
    1. Yes
    2. No

39. Were any courses which you took in college taught in part by television?
    1. Yes
    2. No

40. Were media materials other than television (films, filmstrips, slides, audio tapes, etc.) used in any of the courses which you took in college?
    1. Yes
    2. No

41. When you were in college, was a study center available for individual use of video tape playback?
    1. Yes
    2. No

42. When you were in college, was a study center available for individual use of audio tape playback?
    1. Yes
    2. No

Objective 6: The identification of problems in the local production of mediated instructional materials.

Procedure: The area under consideration was defined as that which makes it difficult or impossible for teachers in a school to prepare video tapes, audio tapes, or film. "Local" referred to the production at ETHS but is not meant to exclude the fact that some of the same problems might be encountered wherever non-commercial production centers were engaged in the same type of media production.

Results: Earlier portions of this report presented teachers' opinions regarding production problems. Direct quotations were included in the previous portion, but it seems sufficient here to summarize the difficulties in the local production of the materials.

1) Time. Teachers feel that summer curriculum projects are necessary to free a teacher from classroom responsibilities to provide time for the preparation of instructional materials.
2) Lack of knowledge of the media. Most teachers are unfamiliar with the characteristic features of the various media and thus waste time on materials not suitable for the ir-

tended purpose. Expectations are too high for the ability of a "television camera to transform a dull lesson into an exciting learning experience."

3) Lack of clarity of objectives. Discussions on the preparation of materials too often begin with "I want to make a tape about XX" without a clear statement of what effect that tape is to have on the behavior of the student using the tape.

4) Lack of production knowledge. In an ideal situation the faculty talent could walk into a production center and "teach" with the aid of advance conferences and services of curriculum editors, script writers, graphic artists, film editors, engineers, and scenic designers having set the stage for a professional production. In "local" production teachers and production staff must communicate each step of the way (while performing a dozen unrelated chores in the operation of a school) and share responsibilities which in a "professional shop" might belong only to a special staff member.

It has long been the policy of ETHS television that teachers should not have to be skilled in television or film production techniques any more than teachers need to be librarians to use the library effectively, but they must know what they can reasonably expect from the library and the librarians and how to get the most helpful service from each. In keeping with this belief ETHS has remained, since 1955, one of the few secondary schools to require producer-directors to hold a teaching certificate.

5) Copyright restrictions. These have been discussed under "the exchange of tapes with other schools," but they are certainly a deterrent to local production. One educational station estimated that ninety cents out of every dollar of their clearance and rights budget had to be spent on correspondence, follow up of owners' rights, and legal fees in connection with copyrighted materials to be released for use on their station. No "local" production center has the staff or funds to obtain releases in time for materials to be prepared for use while they are still relevant

to the need. No teacher is willing to prepare material until he is assured it can be released for use. The present state of the copyright law revision has further confused the issue.

6) Dependence on outside sources. At ETHS development of film, sound striping, and cartridging are done by commercial companies. The delay involved here is discouraging to a teacher who is ready to edit his film or add a sound track but must wait for requisitions to be processed and deliveries to be made. The teacher who has shot film during the first two weeks of a summer project may have to wait an additional two weeks before he can begin the editing process and continue with his project.

7) Production costs. Cost of the kind of equipment and staff needed for the production of professional quality materials can rarely be supported by a local school budget.

These factors observed in the ETHS Title III project are substantiated elsewhere in a report released in February 1970 by the Instructional Services Division of the National Association of Educational Broadcasters. The study was con-

ducted by the Development Education and Training Research Institute at American University in Washington. Although the objective of the study was to identify the problems experienced by public school systems in radio and television instruction rather than dial access, most of the problems are equally applicable since the ETHS dial access retrieves both audio and video information.

The following paragraphs are quoted directly from this report:

> "Basically, the 'cottage industry' approach to ITV program production characteristic of many of the school systems visited, in which it is envisioned that most of the ITV programs to be used by the system can be produced within the system, has been a failure to date.
>
> a-Production costs for local production have been the single largest ITV operating budget line item. Even then, the resources have been inadequate for producing high quality programs because the resources have been spread too thinly over too many programs.
>
> b-The relief from high local production costs that was anticipated through 'program sharing' among school systems has not occurred; pro-sharing has run afoul of existing copyright laws. These contain a tangle of restrictions related to use permission and fees. Two key issues are: the residual rights of teachers involved in producing a program; the use permission and fee paid by a school system producing a program, when a proprietary clip is used in the program, not being applicable to the program's use by a 'borrowing' school system.

c-Attempts to insure high classroom utilization of locally produced programs through 'involvement' of classroom teachers in the production process have been counter-productive in terms of both program quality and teacher acceptance. Most classroom teachers have neither the desire nor the talent to be so involved; there seems to be little positive transfer from the ability of some teachers to recognize a 'good' program to an ability and willingness to produce one. Agreement on program specifications is difficult to achieve among teachers themselves; teacher views frequently clash with professional production views. The inevitable compromises in content and pedagogical technique necessary in such situations frequently results in a program judged by even the teachers who were involved to be of poor quality. The combination of frustration in 'involvement' and dissatisfaction with the end product clearly militates against high utilization, particularly when an objective evaluation system, based on student performance, is not available."

ED 030 012
Wagner, Lybrand, and Reznick,
A Study of Systemic Resistances to Utilization of ITV in Public School Systems

The conclusions reached through the ETMS project experiences are that local production costs and problems being what they are, this school cannot rely solely on local production or exchange with other schools to meet the needs for all kinds of mediated instructional materials. For specific needs of special groups, local production is necessary and desirable, but it must be supplemented by material prepared by those who have access to larger resources, both educational

and financial.

Objective 7: The identification of problems involved in the distribution of materials via a dial access video and audio information retrieval system.

Procedure: The collection of evidence in this area was confined to equipment operation, not the negotiations with two contracting firms which were reported in detail in the first two renewal applications. Additional evidence was collected in the student responses to the question: "Have you heard about the dial access carrels?"

Results: Breakdown reports, operating difficulties, and lack of accessibility of materials have been reported earlier in this report in supporting evidence regarding teacher attitude and student use. A summary of these distribution problems previously reported in this chapter would include:

1) Equipment breakdowns. There was not one week of operation without some difficulty.

2) Small number of channels with the necessity of scheduling a week in advance. Without the more sophisticated random access system, some such provision will always be necessary.

3) Small number of channels with video, which

is used by students six times as much as audio.

4) Small number of wet carrels in the resource centers, a total of 50 to accommodate a student body of approximately 5,000.

5) Two systems operating differently. This difficulty is not inherent in a dial access system, but it was a functional difficulty in the two at ETHS.

6) No opportunity for the student to control the tape; that is, if the student tunes in after the tape has started, he must wait until it has completed that playback before he can see or hear the beginning.

The most serious problem caused by the dial access distribution was the frustrating delay in the installation of the equipment, causing irreparable psychological damage to the morale of the faculty eager to use materials they had prepared the previous summer to meet the needs of a new schedule and new time allotments for students. The first temporary installation was not functioning even intermittently until May of the second year of the project. The second contractor had additional equipment operating in October of the third year. Even at the end of the project neither contractor had an installation which met specifications and operated satisfactorily.

It is obviously impossible to evaluate the effectiveness of instructional materials when they are distributed via a system which is operating less than 1/3 of the period

of the project and which was at no time operating dependably.

It would be an injustice to other schools contemplating such an installation not to include warnings which would enable them to profit by the experiences of this Title III project. A school intending to install this type of equipment should: 1) engage the services of a competent, experienced engineering consultant to write the specifications; 2) the engineer should be affiliated with an engineering consultant firm, preferably one with access to legal counsel; 3) he should be familiar with the electronics industry, the integrity and service records of the various companies; 4) he should know enough about education to be cognizant of the differences between an installation in a secondary school, an installation in a college, and an installation in a business or industry; 5) he should be available to check the installation during the process and at the completion; 6) he should certify that the installation meets the specifications before the contractor is paid; 7) the contract should include a specific penalty clause for each day's delay in meeting the installation deadline.

The ETHS systems engineer, who has worked with the dial access system from the time of the writing of the

specifications by an engineering consultant through the various stages of installation and operation to the time of this report at the conclusion of the project, has described the problems with the dial access distribution at ETHS thus:

"During the two school years in which we had an operating dial access system at Evanston Township High School a considerable amount of data has accumulated on the technical troubles and difficulties one can expect with such a system. Although many of the problems were due to electrical or mechanical failures, a substantial number of trouble calls resulted from the students and the library personnel being unfamilar with the operation of the student carrel stations. This problem existed in spite of the fact that a number of training sessions was held for library personnel, teachers, and others involved in the use of the system. I feel that in our case two causes exist for this problem. First, we have student stations of two different types of manufacture, using two different dialing methods. This tends to confuse the operator and frequently the wrong dialing method is used. In the second case I suspect that the library personnel being busy with many other duties in addition to the supervision of the carrels, do not often operate the carrels personally and thus tend to forget the

procedure.

Tape Decks:

Probably the greatest single source of trouble in the system is the tape decks. We had great difficulty in dubbing programs from some of our master tapes made on Ampex 660 and 7500 type video recorders to the IVC 800 tape decks used for automatic access. Although these master tapes could be dubbed successfully to Sony and Panasonic formats the IVC recorders would not lock up on the Ampex sync signal, even though the signal was regenerated using a high quality processing amplifier. Although engineers from both companies worked on the problem, the cause was never discovered.

Another continuous source of trouble is run-off at both the leading and trailing ends of the programs. In many cases this problem occurs when the photocell logic does not initiate the proper control function at the proper time. This causes the machine to play, rewind, or fast forward past the clear one point on the tape and the machine then continues in that function until the tape supply is exhausted.

A similar run-off problem can occasionally occur when the brakes get out of adjustment and do not apply with sufficient force to stop the tape within the limits

of the normal amount of clear leader used. Poor braking has also resulted in tape spillage and looping which in many cases has damaged the tape by producing wrinkles or badly torn spots in the tape. Additional problems have occurred due to the characteristics of the tape used. In one case the tape appeared to be too wide for the guides causing longitudinal creasing along the tape. In another case the tape oxide surface was defective causing severe shedding of the oxide and packed heads.

The audio decks in the Chester system have had some occasional brake problems but nothing as extensive as with the video decks. The Chester audio decks did, however, produce severe wear of the tape surface near the beginning of the tape. This appears to be caused by the capstan shaft rubbing and abraiding the oxide surface of the tape when the deck is in standby operation.

Problems with the decks in the Multimedia system consisted of preamplifier failures, loose reel hubs, and the lack of a tension sensing device to turn the deck off in case of tape spilling or breakage. This latter problem has since been corrected by a field modification.

Monitors and Enclosures:

A significant number of problems has arisen because of monitor and enclosure design. The original enclosures

furnished by Multimedia had exposed slot-type screw heads in the access covers. These were promptly removed by the students using pen knives and dimes to turn the screws. Replacing the slot-head screws with Allen-head types did not provide a complete solution as some students apparently brought in Allen wrenches to remove them. The problem was lessened further by replacing the screw-on front panel with a hinged, locking door.

The monitor enclosures furnished by Chester are very cumbersome from a servicing standpoint, since the entire enclosure must be unscrewed from the carrel just to check a fuse in the monitor or to check the underside of the dial panel. In fourteen of the carrels, an additional metal pan containing ten or more mounting screws must be removed before the screws holding the monitor enclosure are accessible. This makes servicing slow and difficult. Another problem appeared when the heat from the monitors softened the glue used to fasten the veneer on the Chester enclosures. Once the veneer started to loosen, the students removed large sections from the surface. A number of dial panels were removed from the Multimedia carrels by the students. As we discovered later, these panels were mounted to the associated aluminum castings by double-sided "Scotch" type tape and could easily be removed by use of a knife blade, thin

key or other thin object. Contact cement seems to have solved this problem.

A substantial number of the Conrac monitors have a tendency to blow fuses when usage is heavy. In two cases, contractor's service technicians had replaced the blown fuses with new ones having several times the current rating of the correct size. Subsquently, when trouble developed, the fuses did not blow causing the power supply section of the monitors to be severly damaged. Although the damage occurred on 12/15/69 and 12/16/69, the contractor has not yet (as of 8/25/70 repaired and returned these monitors to the school.

Additional monitor problems were caused by students breaking into the monitor enclosures and tampering with the monitor controls, unplugging the power cords, breaking the prongs off the power plugs, and in one case poured glue into the button assembly of the touch-tone dial completely destroying it.

Judging by our experience a substantial amount of difficulty can be avoided by the careful design and installation of the student tations. If possible no mounting or fastening hardware (screws, etc.) should be exposed to the student. All wiring, plugs, connectors and "technical" type

controls should be completely consealed and protected. Those controls that must be available to the student should be of the most rugged design available."

(Mr. George Geyer)

The Director of the Media Center, who was responsible for the scheduling of the tapes for dial access and for getting the tapes properly dubbed, was most aware of the operating difficulties, since teachers came to him first with their problems. He listed the following problems with the operation of a dial access distribution system:

1) Only 32 audio sources are available (with a potential of 92) during the past school year because of a delay of inter-connection between the two systems
2) Four parallel tracks on each audio deck require hand scheduling of programs of equal length on each track of a given deck
3) Different dialing code must be used for same program from stations of the two systems.
4) Different dialing procedure must be used for each system
5) A daily program schedule, which would have been more useful than the rigid weekly schedule, was

not practical.

6) Not all audio-visual materials are appropriate for dial access.

(Mr. J. F. Madden)

The ETHS experiences support the conclusion that video and audio information retrieval systems need further refinement before they are sufficiently reliable and trouble-free to warrant their adoption as a major channel of distribution in a public school.

If distribution is to be via dial access in resource centers, in a setting away from the classroom, one of the problems is informing the students about its existence. The student responses to the questionnaire indicate that motivation to use dial access may have been lacking, but knowledge of its existence and location was not, for 95.76% of the respondees indicated that they had heard about the dial access carrels. 96.01% of the boys responded affirmatively and 95.47% of the girls. (see chart 19)

The percentage of Yes answers by grade levels, as indicated on chart 19, ranked in this order:

1st - 9th grade	96.90%	(Ninth graders were taken on a tour of the resource centers as part of their orientation.)
2nd - 10th grade	95.72%	
3rd - 11th grade	95.12%	
4th - grade	94.98%	

The percentage of Yes answers by schools ranked as follows:

1st - Boltwood	96.93%	(This school had the lowest number of users)
2nd - Michael	96.73%	(This school had the highest number of users.)
3rd - Beardsley	95.72%	
4th - Bacon	93.91%	

The groups in the four schools with the highest number of students indicating they did know about the dial access carrels were as follows:

1st - Michael	11th grade	98.68%
2nd - Boltwood	9th grade	98.00%
3rd - Boltwood girls		97.32%
4th - Michael boys		97.22%

The groups with the most students who had not heard about dial access were as follows:

1st - Bacon 12th grade	7.95% had not heard
2nd - Beardsley 11th grade	6.99% had not heard
3rd - Bacon girls	6.29% had not heard
4th - Bacon boys	5.91% had not heard

Comments of both students and teachers indicate that although students knew about the existence and location of the carrels, they did not really understand the use of the carrels for independent study or their relationship to

other instructional materials.

At the time the application for the project was submitted to the U. S. Office of Education, the achievement of these seven objectives did not seem an unreasonable goal. Perhaps such an ambitious undertaking was to be expected of school administrators, whose work, in the words of Sir Richard Livingston of Oxford, "consists in being pushed by events, finding immediate answers to immediate questions, and the difficulty (being), behind their urgency, to remain aware of anything ultimate, to avoid mortgaging the future."[1]

The project director prefers to seek comfort in the words of one of the world's best known teachers, Pestalozzi, as quoted in the Teachers's Letter: "Do not let vanity make you anxious to see your efforts producing premature fruit."[2] An optimistic view would be that, the seed having been planted, the school can now begin to cultivate its growth in the hope that the harvest will be fruitful. A Title III catalogue of locally produced and/or edited materials listing 185 video tapes, 479 audio tapes, and 184 films is certainly enough seed to affect learning experiences if properly used.

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1. Price, Lucian. Dialogue of Alfred North Whitehead. Little, Brown, and Company, 1954, p. 305.

2. Teacher's Letter. A. J. Croft Publications, 1969, vol. 19, no. 8, p. 2.

C H A P T E R I I

PROJECT ENDEAVORS IN WHICH ANTICIPATED RESULTS HAVE EXCEEDED EXPECTATIONS AND THOSE IN WHICH RESULTS HAVE NOT MEASURED UP TO EXPECTATIONS

C H A P T E R I I

PROJECT ENDEAVORS IN WHICH ANTICIPATED RESULTS HAVE EXCEEDED EXPECTATIONS AND THOSE IN WHICH RESULTS HAVE NOT MEASURED UP TO EXPECTATIONS

The chapter on "Effects of Project on Clientele" gives a detailed study of successes and failures, but a summary in two categories will point up the contrast between anticipated and actual results.

Endeavors which did not measure up to expectations were these:

1) Exchange of materials with other schools
2) Sharing of materials with two parochial schools in Evanston and two public schools in Chicago
3) The development of single concept Super 8 mm sound film cartridges
4) The development of a high degree of student/teacher enthusiasm for the use of dial access
5) The development of materials specifically geared to independent study
6) The satisfactory operation of a dial access audio/video information retrieval system
7) Attempts to measure objectively the specific efforts of various materials when distributed via dial access

Fortunately, there were compensating factors in that some endeavors exceeded expectations:

1) The in-service training clinics for teachers
2) The development of an interest in film making
3) The development of enthusiastic reception of cassettes
4) The development of an awareness of the multiple technological aids in our school
5) The recognition by the administration that time must be allotted for summer curriculum projects for the preparation of mediated materials

6) The recognition, when the dial access installation was delayed for two-thirds of the time of the project, that portable projectors, cassette recorders, and cartridge film projectors are effective classroom substitutes for the much more elaborate dial access system.

A more appropriate time to evaluate the success of these endeavors would be three years after the dial access system has been functioning satisfactorily and the impetus of a project grant is no longer a motivating factor.

C H A P T E R I I I

EFFECT OF THE PROJECT ON THE EDUCATIONAL INSTITUTION WITH A STATEMENT OF THE GREATEST CHANGE RESULTING FROM THE PROJECT

(This chapter will be discussed with Chapter VI)

C H A P T E R I V

EFFECT OF THE PROJECT ON COOPERATING AGENCIES

1. Community agencies
2. Local educational agencies

C H A P T E R I V

EFFECT OF THE PROJECT ON COOPERATING AGENCIES

1) Community agencies
2) Local educational agencies

No community agencies were involved as cooperating agencies as that term is defined for project applicants. However, many community organizations and groups were involved in two ways: 1) By using the facilities of the Media Center to produce materials. Northwestern University, Garrett Theological Seminary, District 65 Elementary Schools, First Presbyterian Church, Illinois Council on Economic Education, all produced mediated materials assisted by the Title III staff. 2) By observing the activities and/or participating in them. The Board of Education, the Chamber of Commerce, the Zonta Club, a group of 40 citizens on "See Your High School" day, all saw demonstrations of the operations in the Media Center and in the resource centers. A group of P.T.A. parents used the tapes as part of their college counseling workshop.

Community agencies and individuals also cooperated as participants in the videotaping of the Talk About programs, a series of nine discussions on current controversial subjects of great interest to students. Individuals who donated their services to the school for this series were as follows:

Talk about Censorship - Mr. Jay A Miller, Executive Director
Illinois Division of Agriculture
Dr. Cal Claus, Head of Psychology Dept.
National College of Education
Mrs. Martha Baumberger, Director
Zonta International, Evanston
Movie Reviewer

Talk about Draft - Mr. Edward G. Sanderson, Evanston Draft Board
Mr. David Aiken, Draft Counselor
Chicago Sun-Times
MSG. Herman Roth, Army Recruiting

Talk about Drugs - Miss Faith Schumaker, former drug user from Gateway House
Mr. Gunner Johnson, Pharmacist

Talk about Gateway House -
Mr. John Sabora, Resident Staff Director
Gateway House
Miss Judy Schwartz, Resident, Gateway House
Mr. Howard Elkins, Resident, Gateway House

Talk about Feminist Movement -
Miss Eva Jefferson, President
Northwestern Student Government
Miss Toby Ditz, Member, Northwestern Chapter
Chicago Women's Liberation Union
Miss Audy Meditch, Member, Northwestern Chapter
Chicago Women's Liberation Union
Mr. Don Anderson, Northwestern School of Speech

Talk about New Homosexuality -
Mr. Maher Ahmad, Northwestern Gay Liberation
Dr. Don Carns, Northwestern University
Mr. James David, Mattachine Midwest
Miss Denise Walther, Northwestern Student

Talk about New Morality -
Mr. Paul Shedd, Actor
Dr. Morris Taggart, Garrett Seminary

Talk about Pollution -
Mr. William LaVielle, Federal Water Pollution Control
Mr. Charles Sigwart, Northwestern Ecologist

Talk about Protest Movement -
Mr. John Jensen, Young Americans for Freedom
Dr. Bernie Beck, Asst. Professor of Sociology
Northwestern University
Dr. Richard Lyons, Alderman from 8th Ward

Local business and industry personnel who contributed their services as "talent" in the taping of materials for student use include:

Four local retail store managers on "Careers in Retailing"

Mr. David Taylor, WGN Personnel Manager, on "Applying for a Job"

Dr. Claude Mathis, Northwestern University, on "The College Suggestor"

Guest speakers on "Banking," "Mental Health," and "Apprenticeship"

Dr. Joseph Boyd, Director, Illinois Scholarship Program, on "Illinois State Grants"

Judge Kelley, member of Alcoholics Anonymous

Dr. Barnes, designer and installer of an organ he gave to ETHS

Prof. James Turner, Northwestern Professor of Black Studies

Dean James McLeod, Northwestern University, on "College Counseling"

Dr. James Perry, Professor of Religion, Northwestern University, on "Buddhism"

Professor Mohamad Hassan Ateshi, on "Moslem-Iranina"

Father Thomas Doyle, St. Lawrence Church of Chicago, on "The Catholic Church Today"

Dr. Hessert, of Garrett Theological Seminary, on "Christianity"

Rabbi Kantor, Skokie Valley Traditional Synagogue

Dr. Francis Hsu on "The Chinese Family"

Dr. Bruno Bettelheim on "Motivation for Learning"

Other program guests, outside the immediate local area, appeared here on tapes made in ETHS studios:

Mr. Benjamin McKendall, Dean of Admissions, Reed College, on "Colleges and Universities of the West Coast"

Dr. William Revelli, Director of Bands, University of Michigan

Dr. David Burge, Professor of Music, University of Colorado, ETHS alumnus

Miss Vinnie Burrows, Negro actress, three programs of readings

Mr. Toni Verdi, NBC Director

If "local" may be interpreted to mean "in Illinois" as opposed to a national agency, several educational agencies may be listed as observing the project in operation, attending conferences at ETHS, or hearing reports by Title III staff members.

Illinois educational agencies or organizations receiving oral reports by Title III staff members were these:

Instructional Materials Workshops at Dixon and LaGrange

Illinois Council on Economic Education in Evanston

Regional conference of the College Entrance Examination Board in Chicago

Illinois Association for Curriculum Development

Illinois Audio-Visual Association

Illinois educational institutions and [illegible] which visited the project in operation included:

Northern Illinois University

Rockford College

University of Illinois

Chicago Latin School

University of Chicago Student Teachers

Roosevelt University

Illinois Association of Student Teachers

Ottawa High School Future Teachers of America

College of St. Francis (Joliet)

Librarians from five counties

Educational institutions in the following Illinois cities sent representatives to Title III conferences at ETHS:

Aurora
Chicago
Deerfield
Elgin
Glenbrook
Highland Park
LaGrange
Normal
Oak Park
Springfield
Thornridge
Thornton
Urbana

C H A P T E R V

DISSEMINATION ACTIVITIES

1. Visitors to E.T.H.S.
2. Unsolicited requests for information
3. Conferences attended
4. Speeches and presentations
5. Conferences conducted
6. Publications
7. Internal activities

V. DISSEMINATION ACTIVITIES

1. Visitors. Without question the major channel of communication about the activities of the project has been the visitors from other educational institutions. According to Dr. John Dal Santo, Administrative Intern, from 2500 to 3000 persons visited Evanston Township High School during the 1967-68 school year. This was the first year of the project before the dial access had been installed and before the television studios had been completed.

During the second and third years of the project the number of visitors has required increasing amounts of staff time for conducting tours, demonstrating materials and equipment, answering questions about utilization and effectiveness, and arranging teacher conferences in special subject field interests. During the 1969-70 school year visitors from outside the continental U.S.A. represented these areas: Ontario, Japan, England, nine foreign countries sent by the U.S. Department of State, Switzerland, Sweden, Germany, Australia, Formosa, and New Zealand. The project was also visited by educators from Massachusetts, Indiana, Wisconsin, Iowa, Michigan, Minnesota, Florida, Ohio, Maryland, Kansas, California, New York, Texas, Missouri, Connecticut, and Pennsylvania.

During the 1969-70 school year when flexible scheduling had been in operation for three years and the dial access installation was functioning more or less regularly, groups of visitors from educational institutions and related organizations visited the school and

received special presentations on the purposes, functions, and materials of the Title III project. Among these groups were the following:

Don Mills Collegiate Institute, Ontario, Canada
Northern Illinois University Student Teachers
Rockford College
Miami University, Oxford, Ohio
80 from California Industry-Education Council
University of Illinois
Board of Trustees and Faculty of Chicago Latin School
Lakewood(Ohio) High School Faculty
University of Chicago Student Teachers
Roosevelt University Department of Education
National Conference of Christians and Jews, Students in Conference
70 from Kansas State University Library School
40 from Illinois Association for Student Teachers
30 from Ottawa(Illinois) High School Future Teachers of America
College of St. Francis, Joliet, Illinois
175 librarians from five Illinois Counties

Local groups receiving special tours and presentations included the Board of Education, representatives from the Chamber of Commerce, the PTA, Zonta International, and 40 citizens during "See Your High School" day on January 19. Northwestern University, Garrett Theological Seminary, and District 65 Elementary Schools prepared materials using the studios and were oriented to the Title III program at that time.

2. Unsolicited requests. It is difficult to estimate the amount and destination of descriptive materials about the Title III project distributed by the Visitors Bureau and the Office of Information Services. However, it is possible to list the requests received directly by the Title III office during the 1969-70 school year:

Education Center, Cincinnati Public Schools
Comissao Nacional de Atividades Espacias, Brasil
University of Tokai, Hokkaido, Japan
Bethlehem(Pennsylvania) Area School District
School of Labor and Industrial Relations,
Michigan State University
Havre de Grace(Maryland) Senior High School
Audio Visual Center, Adelaide, South Australia
Southwest and West Central Minnesota Educational Research and Development Council, Southwest Minnesota College
Public Schools, New Canaan, Connecticut
School of Education, Oregon State University
West Berlin ITV Authority, Berlin American School, APO New York
Education Research Center, Emerson College, Boston
The Educational Informer, Beloit, Kansas
Educational Center, Indianapolis Public Schools
Kantonsschule, Zurich
Greenwich Public Schools, Greenwich, Connecticut
School of Education, Loyola University, Chicago
School of Communications, Loyola University, New Orleans
Swift Current Comprehensive High School, Saskatchewan

3. Conferences attended. The selection of conferences to be attended by members of the Title III staff was based on criteria relating to two purposes: to acquire information about the media field and independent study techniques and to discuss the Title III project with other persons in similar activities.

During the initial year of the project when planning and production of materials were the major emphases of the staff, representatives of the Title III technical staff visited the dial access installations at Oral Roberts University, Oklahoma Christian University, Oak Park (Illinois) High School, and West Hartford(Connecticut) Dial Select System. Production staff representatives attended related conferences:

AV Coordinators of Triple S Schools, Denver, Colorado
National Association of Educational Broadcasters, Denver, Colorado
Division of Audio-Visual Instruction, Portland, Oregon
National Education Association Copyright Conference, Washington, D.C.

V. Dissemination

During the second and third years of the project the Title III staff was represented at the Illinois Council for Educational Television, the Association for Supervision and Curriculum Development, the National Association of Educational Broadcasters, the Illinois Audio-Visual Association, the Commission on Educational Technology hearings in Washington, School Management Conference on Educational Technology, and the Division of Audio Visual Instruction of the NEA.

4. Speeches and presentations. Representatives of the Title III staff made presentations and/or reports, gave speeches and/or demonstrations at the following meetings:

Educational Parks Conference, Fort Lauderdale, Florida
Kanawha County Teachers Association, Charleston, West Virginia
Instructional Materials Workshop, Dixon, Illinois
Instructional Materials Workshop, New Lenox, Illinois
Dissemination Conference, Sheraton O'Hare, Chicago
National Association of Educational Broadcasters, Washington, D.C.
Illinois Association for Supervision and Curriculum Development
Dissemination Conference, Lyons Township High School, LaGrange, Illinois
New Trier Township High School, Winnetka, Illinois
National Council of Teachers of Social Studies, Houston, Texas
Annual Meeting, College Entrance Examination Board, New York City
Regional Meeting, College Entrance Examination Board Chicago
National Safety Council, School and College Division, Chicago
Illinois Council for Economic Education, Northwestern University, Evanston, Illinois

In June 1969 two members of the production staff and two teachers representing the areas most actively engaged in the production of mediated materials visited the West Hartford(Connecticut) dial select

system to observe the facilities, the methods of operation, the scheduling, classroom reception an utilization, the preparation of materials, and to discuss with faculty and staff the concerns experienced locally for more efficient and effective operation. The four ETHS representatives spent a day and a half with the staff of the project at West Hartford.

A tape/slide presentation describing the Title III project at ETHS was shown for Northwestern University, Evanston, Illinois; Association for Student Teaching at Northern Illinois University, DeKalb; School of Education, Indiana University, Bloomington; Loyola University, Chicago; two teacher training schools in Zurich, Switzerland.

5. Conferences conducted. Three local conferences were planned and conducted by the Title III staff. During the second semester of the 1967-68 school year representatives from the Great High Schools Project in Pittsburg, Pennsylvania; the Dial Select System of the West Hartford Public Schools, West Hartford, Connecticut; Unified School District, Beverly Hills, California; and Oak Park-River Forest High School, Oak Park, Illinois, met at Evanston Township High School to discuss objectives , to preview and evaluate materials presented by each participant, to introduce to each other teachers from the five school systems, and to arrange a feasible system for the exchange of mediated materials prepared in the five schools.

The second conference on October 10-11, 1969, was an invitational conference on mediated instructional materials and dial

access for independent study. Although the complete installation was operating for the first time that week, the programs included observations of students using materials in the four resource centers; demonstrations by teachers who had made and/or were using mediated instructional materials; previewing of film, videotapes, and audio tapes. Dr. Willard Congreve, Superintendent of Schools in Newton, Iowa, formerly principal of University High School at the University of Chicago and an authority on independent study, addressed the group at a dinner on the subject: "Independent Study in the Secondary School." Dr. Philip Lewis, of Instructional Dynamics, Inc., formerly Director of Instructional Materials for the Chicago Public Schools, addressed the luncheon meeting on the subject: "Mediated Instructional Materials."

Registration at the conference included the following from Illinois:

2 from Aurora Public Schools
1 from Chicago Board of Education
2 from Deerfield
5 from Elgin
10 from Glenbrook
6 from Highland Park
3 from Lyons Township
7 from Normal
1 from Springfield
1 from Thornridge
2 from Thornton
2 from Urbana

Attending from outside the state were:

1 from Indianapolis, Indiana
2 from Lakewood, Ohio
17 from Shawnee Mission, Kansas
1 from New York

V. Dissemination

The final conference of the project was a dual meeting on April 30, 1970: "Oak Park and Evanston Look at Their Dial Access." During the morning Oak Park teachers joined the ETHS teachers to assess their dial access operations.

The first session was designed to be informative for both faculties with reports relative to the difference in functioning of the two projects. Explanations were presented by each school in answer to these questions: How are teachers selected? Who decides what materials will be prepared? How and when are materials prepared? How are materials used?

The discussions of the second session were focused on the strengths and weaknesses. Questions considered were as follows: What are the operational strengths and weaknesses? What are the instructional advantages and disadvantages? What are student and faculty reactions?

The third session was devoted to recommendations for the future, including responses to these questions: As a result of what we have learned, where do we go from here? Where can dial access make its most significant contribution? What recommendations would we make to other schools? To our own planning committees?

During the afternoon of the conference Evanston teachers traveled to Oak Park to observe their dial access system in operation and to view the instructional materials center and the television studios under construction. The Oak Park teachers remained in Evanston to visit the resource centers, to observe reception of dial access materials, and to preview taped materials they had requested from the ETHS catalogue.

6. Publications. In addition to conferences and workshops, dissemination activities were carried on through publications in Adult Education, Audio Visual Instruction, Educational Screen AV Guide, and NEA Journal (Today's Education). The cover of the June 1970 issue of Educational Television featured a color photo of ETHS students using the dial access carrels in one of the resource centers. The issue included an article describing the activities of the project with tentative evaluation.

Two catalogues (a third is now being edited for fall distribution) of locally prepared mediated instructional materials were distributed on request. A Newsletter about current activities of the project was distributed to the school's mailing list the first two years and to the faculty only during the third year.

Local newspaper coverage was sparse, dealing mostly with Board of Education actions regarding contracts and related financial matters.

7. Internal activities. The most challenging problem in a school of over 350 faculty and 5000 students is the dissemination of information within the school itself. For students Title III utilized the traditional channels: the school newspaper, the daily bulletin, and special displays. Evaluation statistics indicate that the most frequently mentioned sources of information about dial access were "seeing the carrels" and having teachers refer to them. In a schoolwide questionnaire administered in May 1970, 95.76% of the students indicated that they knew about the dial access carrels.

V. Dissemination

The dissemination of information to the faculty followed different patterns during the three years of the project. The first year each department selected a representative as a "channel of communication for getting information about the facilities we will have available, how they can be exchanged with Beverly Hills, West Hartford, and Oak Park, and what kind of workshops we will have for our own teachers." The effectiveness of this system of communication correlated directly with the interest, enthusiasm, and activity of the individual department representative.

During the second year the project staff initiated a series of mini-clinics and in-service training sessions for the faculty. A consultant would give an over-all view of a problem at an afternoon faculty meeting; the following day individual or departmental groups would have conferences on specific problems of concern in their subject area. One of these clinics generated such a variety of problems in the copyright field that the NEA consultant, Dr. Harold Wigren, asked the teachers to write their specific questions for him to submit to copyright attorneys in Washington, the ultimate result being a conference in Washington for schools with similar problems in the reproduction of copyrighted materials for use on dial access.

The mini-clinics were continued the third year at the request of the faculty, who listed these sessions as the most helpful way to secure information. Attendance varied from 2 to 200. The clinics were all optional, and no released time was given for any of them.

The variety of themes and problems covered during the two years is indicated by the following topics for the mini-clinics:

1) Multi-media workshop: demonstrations of all media hardware to be available at ETHS, previewing of tapes suitable for dial access, previewing of tapes from National Instructional Television Center, use of workbooks and tapes, addresses by two consultants:

   Dr. Melvin Barnes, curriculum authority and school superintendent from Portland, Oregon
   Dr. Charles Richter, superintendent in West Hartford, Connecticut

2) "Preparing Materials for Independent Study"
   Dr. Leon Meeks, Principal, Corona Del Mar High School
   Newport Beach, California

3) "How to Decide Which Media to Use" Mr. Carl Grebe
   Media Specialist, ETHS

4) "Capacities and Potential of Our Equipment"
   Mr. J. M. Madden, Director of Media Center, ETHS

5) "Mini-units for Dial Access" Miss Jean Davis
   Dept. of Mass Communications, Albany, New York

6) "Improving Instruction through Television"
   Dr. Lewis Rhodes, Director, NPITI Project
   National Assn. of Educational Broadcasters,
   Washington, D.C.

7) "Copyright Considerations in Reproducing Instructional Materials" Dr. Harold Wigren and Mr. Donald Mick
   Educational Technology Division, National Education Assn.
   Washington, D.C.

8) "How to Structure Content for More Effective Learning"
   Miss Van Ftergiotis, Curriculum Editor, Dial Select System
   West Hartford, Connecticut

9) "How to Organize Content and Learning Activities for Continuous Progress" Dr. James Smith, Educational Associates, Fort Lauderdale, Florida

10) "The Systems Approach to Structuring Content"
    Dr. Gustav Rath, Northwestern Technological Institute
    Evanston, Illinois

11) "How to Operate a Sony Recorder"
    Mr. Norman Isacson, ETHS Staff

12) " How to Make a Good Audio Recording"
    Mr. William Kaffenberger, ETHS Staff

13) "The Preparation of a Script"
    Mr. Bruce Scafe, ETHS Producer-Director

14) "How Print-a-Sign Can Serve You"
    Mr. Don Hesse, Printasign Company

15) Demonstrations of graphics and the production of various audio-visual materials
Mr. Gerald Zaslavsky, ETHS Media Specialist
Mrs. Dorothy Bohnen, ETHS Art Consultant
Mr. Peter Janzen, Graphic Artists

16) In-service films
Words and Labels
No Reason to Stay
Use of Microphones
Graphics
Teaching Skills
Why Man Creates
Improbable Form of Master Sturm

The inspiration of the speakers, the technical information and skills passed on in workshop sessions, the introduction to new approaches to structuring content, the concerted attack on instructional problems, and the sharing of ideas over a cup of coffee during a free "mod" at a mini-clinic will continue to affect the instructional program at Evanston Township High School for years to come, with or without Title III, with or without technology, with or without the present Title III staff.

C H A P T E R V I

PROCEDURES FOR CARRYING THE PROJECT

FORWARD WITHOUT FEDERAL SUPPORT

and

C H A P T E R I I I

EFFECT OF THE PROJECT ON THE EDUCATIONAL INSTITUTION

WITH A STATEMENT OF THE GREATEST CHANGE RESULTING FROM THE PROJECT

C H A P T E R V I (including III)

EFFECT OF THE PROJECT ON THE EDUCATIONAL INSTITUTION

WITH A STATEMENT OF THE GREATEST CHANGE RESULTING FROM THE PROJECT

A responsible Board of Education could not continue to support an activity which was detrimental to the school. It could not continue an activity which had no effect whatsoever. Therefore, it seems logical to discuss these two areas (Chapters III and VI) together.

It is difficult to select the greatest change effected by the Title III project. The first change in administration in 20 years; a new flexible, modular schedule; new building facilities; a new concept of providing for individual differences; a new organization of administrative responsibilities, all were factors at work concurrently with the Title III project. During that same three-year period social conditions in urban areas, student unrest, and the proximity of disturbances in Chicago and at Northwestern University made it virtually impossible to isolate a single effect directly and solely due to the Title III activities. However, it seems apparent that faculty members are now more aware of and more interested in instructional materials on film, video tape, and audio tape than they were three years ago. In this connection the Title III activities pointed up the need to coordinate all the media services of the school into one department: the library, the resource centers, the television production center, and the traditional audio-visual services.

It is this reorganization of media services that symbolizes the continuation of Title III activities after the end of the project.

(Chart 20) The Board of Education, with the recommendation of the administration, has authorized the reinstallation of closed-circuit television which was removed during the building construction and renovation; the television production center with the dial access tape decks will continue to function; a new television camera has been purchased with school funds to complement present studio equipment; the former offices of Title III have been converted into an A-V Center, where teachers may obtain assistance with the preparation of overhead transparencies, graphics, slides, films, and other A-V materials; a program of in-service training is being inaugurated to replace the mini-clinics and to include all types of instructional materials; a separate budget has been set up for the production of instructional materials. Some of the services to be provided to the faculty are listed in Chart 21. In a time when school budgets are being slashed drastically, it is evident that retaining a staff of eight to work in the production of materials is an expression of faith in the important contribution of instructional materials to the learning process.

Finally, in this PACE project the Title III activities were intended as a search for creative solutions to learning problems. At the conclusion of this particular venture, it seems appropriate to borrow a quotation from the New Yorker:

> "We have not succeeded in answering all our problems--indeed we sometimes feel that we have not completely answered any of them. The answers we have found only served to raise a whole set of new questions. In some ways we feel that we are as confused as ever, but we think we are confused on a higher level and about more important things."[1]

[1] Kelley, Earl C. "The Workshop Way of Learning," The New Yorker, October 24, 1953, p. 436.

CHART 1

CATEGORIES OF ACTIVITIES OF THE PROJECT

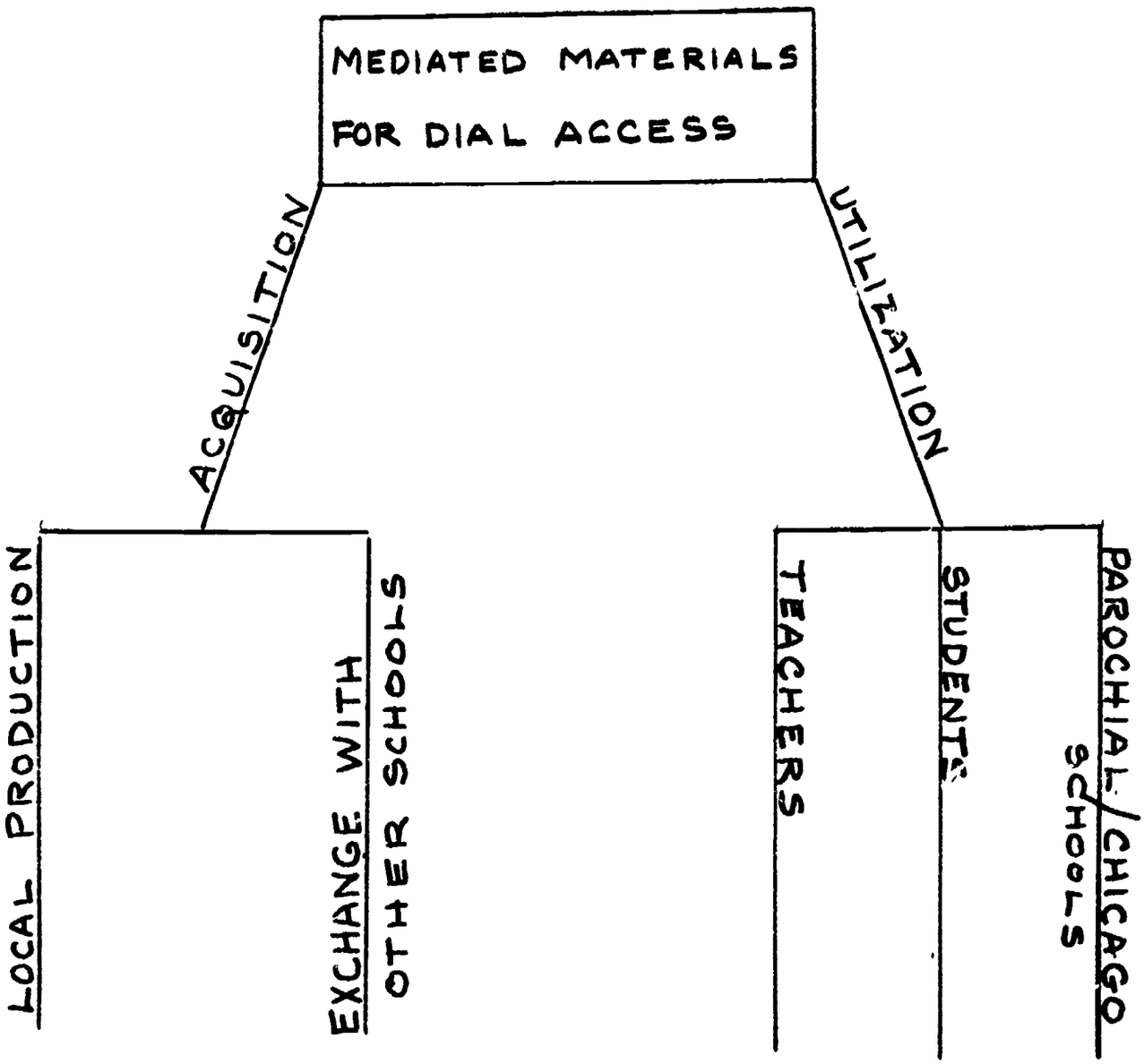

CHART 2

NUMBER OF USERS OF DIAL ACCESS HEADSETS - 17 WKS.

	CENTRAL LIBRARY	BEARDSLEY SCHOOL	MICHAEL SCHOOL	BACON SCHOOL	BOLTWOOD SCHOOL	E.T.H.S. TOTALS
OCT. 27-31	1	181	169	149	78	578
NOV. 3-7	9	164	244	179	116	712
NOV. 10-14 *	1	26	45	47	79	198*
NOV. 17-21	1	91	103	34	18	247
NOV. 24-28 *	3	126	115	95	65	404*
DEC. 1-5	1	115	124	80	77	397
DEC. 8-12	1	26	60	43	28	158
DEC. 15-19	—	37	53	26	18	134
JAN. 5-9	—	5	22	55	34	116
JAN. 12-16	—	37	43	67	74	221
JAN. 19-23	—	17	78	17	111	223
JAN. 26-30	NOT OPERATING					
FEB. 2-6	—	32	132	40	76	280
FEB. 9-13 *	—	33	88	33	34	188*
FEB. 16-20 *	4	31	65	57	35	192*
FEB. 23-27	4	22	68	30	65	189
MAR. 2-6	3	75	144	53	69	344
MAR. 9-13 *	—	48	88	86	50	272*
TOTALS	28	1066	1641	1091	1027	4853
AVERAGE PER WK	1.6	62.70	96.52	64.17	60.41	285.4

* NOT A FULL WEEK, IRREGULAR SCHEDULE, HALF DAYS

2B

NUMBER OF USERS OF DIAL ACCESS HEADSETS-6 WKS.

	CENTRAL LIBRARY	BEARDSLEY SCHOOL	MICHAEL SCHOOL	BACON SCHOOL	BOLTWOOD SCHOOL	E.T.H.S. TOTALS
APR. 6-10	0	36	45	32	30	143
APR. 13-17	1	176	66	93	101	437
APR. 20-24	0	127	80	116	100	423
APR. 27-M.1	1	65	67	80	79	292
MAY 4-8	0	45	26	47	58	176
MAY 11-15	0	46	43	33	71	193
TOTAL	?	495	327	401	439	1664
TOTAL-23 WKS.	30	1561	1968	1492	1466	6517
AVERAGE	1.30	67.86	85.56	64.86	63.73	283.34

CHART 3

DIAL ACCESS STUDENT USE SURVEY

For our report to the U.S. Office of Education we need accurate figures on the use of dial access during this school year. Please help us by following carefully the directions listed below.

1. Use a #2 or a #2½ pencil. Do not use a ballpoint pen.
2. At the top of the answer sheet, fill in your name, school, sex, (M,F), class (grade 9,10,11,12), and English instructor's name.
3. In the upper right-hand corner is a section labeled Identification Number. All answers are to be marked in this section only. You will not be using the bottom part of the answer sheet.
4. Under the red arrow to the left of the words Identification Number there is a column of 10 blank squares. Fill them in with the numbers 1 through 7, placing 1 in the top square, 2 in the second, etc., leaving three unmarked squares at the bottom of the column. These seven numbers will refer to the questions you will be asked to answer.

Questions to be answered in the space marked Identification Number

1. Have you heard about the dial access carrels located in the resource centers?

   If the answer is yes, fill in the 0 space to the right of #1.
   If the answer is no, fill in the 1 space to the right of #1.

2. If you answered yes in question 1, how did you first learn about the carrels? Check no more than three answers.

   If you heard about them from a teacher, fill in the 0 space to the right of #2.
   If you heard about them from a librarian, fill in the 1 space to the right of #2.
   If you heard about them from other students, fill in the 2 space to the right of #2.
   If you heard about them from a counselor, fill in the 3 space to the right of #2.
   If you heard about them from a bulletin notice, fill in the 4 space.
   If you read about them, fill in the 5 space.
   If you saw them in the resource center, fill in the 6 space.

3. Have you used the dial access carrels this year?

   If the answer is yes, fill in the 0 space to the right of #3.
   If the answer is no, fill in the 1 space to the right of #3.

4. If you have used the dial access carrels, how many times have you used them?

   If the answer is 1-5, fill in the 0 space to the right of #4.
   If the answer is 6-15, fill in the 1 space to the right of #4.
   If the answer is 16 or more, fill in the 2 space to the right of #4.

5. If you have used the dial access carrels, how helpful were the tapes you saw or heard?

   If the answer is not at all, fill in the space 0 to the right of #5.
   If the answer is average, fill in the 1 space to the right of #5.
   If the answer is very helpful, fill in the 2 space to the right of #5.

6. If you have used the dial access carrels, was your listening voluntary, recommended, or assigned.

   If the answer is voluntary, fill in the 0 space to the right of #6.
   If the answer is recommended, fill in the 1 space to the right of #6.
   If the answer is assigned, fill in the 2 space to the right of #6.

7. If you have not used the dial access carrels, check the reason or reasons most nearly correct for you. Check no more than three answers.

   If the answer is that you had no reason to use them, fill in the 0 space.
   If the answer is that the equipment wasn't working, fill in the 1 space.
   If the answer is that you preferred something else, fill in the 2 space.
   If the answer is that you didn't like what you heard about them, fill in the 3 space.
   If the answer is that you don't know how to use them, fill in the 4 space.
   If the answer is that you didn't have the time, fill in the 5 space.
   If the answer is that you don't use the resource centers, fill in the 6 space.

   Thank you.

CHART 4

DIAL ACCESS USE SURVEY

Users of Dial Access (October 27 - December 19)

Michael School	913
Beardsley School	764
Bacon School	651
Boltwood School	480
Central Library	16
	2824

12 Carrels in each resource center

2 in Central Library

Audio Programs Dialed (October 27 - December 19)

Michael School	807
Beardsley School	497
Bacon School	474
Boltwood School	318
Central Library	32
	2128

Maximum of 35 programs available at any one time

Video Programs (October 27 - December 19)

Michael School	486
Beardsley School	415
Bacon School	381
Boltwood School	357
Central Library	25
	1664

Maximum of 5 programs available at any one time

DIAL ACCESS

Users (Week of March 16-20)

Michael School	145
Beardsley School	56
Bacon School	60
Boltwood School	42
Central Library	2
	305

85 viewers watched the 2 video tapes = 42.5 average per program

534 listeners heard the 31 audio tapes = 17.2 average per program

CHART 5

Teacher Requests for Mediated Materials Arranged by Subject Matter*

Audio Tapes for Dial Access

- Art 1
- Administration 4
- Business Education 1
- Combined Studies 10
- Counseling 7
- Driver Education 9
- English 11
- Foreign Language 1
- Home Economics 13
- Library 3
- Mathematics 57
- Music 4
- Physical Education (Girls) 5
- Science 3
- Social Studies 68

Video Tapes for Dial Access

- Administration 12
- Combined Studies 4
- Counseling 14
- Driver Education 4
- English 2
- Home Economics 9
- Mathematics 12
- Music 7
- Physical Education (Girls) 5
- Science 3
- Social Studies 20
- Special Services 4
- Speech Arts 2

Closed-Circuit Television Playbacks

- Art 2
- Administration 14
- Business Education 8
- Combined Studies 13
- Counseling 4
- English 29
- Driver Education 9
- Foreign Language 4
- Home Economics 3
- Physical Education (Boys) 2
- Physical Education (Girls) 11
- Music 10
- Science 2
- Social Studies 23
- Special Services 11
- Speech Arts 33

*This list reports only those requests processed by the Media Center and does not include materials in the resource centers, libraries, and department offices and laboratories.

5B

Off Air Television

Combined Studies 1
Home Economics 1
Special Services 2
Student Activities 3
Vocational Education 2

Sony Record and Playback

Art 1
Business Education 1
Combined Studies 8
English 9
Counseling 3
Music 2
Boys Physical Education 8
Science 20
Social Studies 2
Speech Arts 9

Audio Playbacks

Combined Studies 2
Music 1
Social Studies 4
Special Education 1
Foreign Language 2
Home Economics 3
Girls Physical Education 1
Reading 3

Audio Dubbings

Administration 6
Combined Studies 1
Driver Education 6
English 4
Foreign Language 1
Counseling 3
Library 2
Science 3
Social Studies 10
Speech Arts 3
Girls Physical Education 2
Mathematics 5

Audio Recordings

Administration 15
Combined Studies 2
Driver Education 2
English 4
Foreign Language 3
Counseling 7
Music 5
Girls Physical Education 1
Science 3
Social Studies 10
Special Services 1
Speech Arts 4

CHART 6

1) HAVE YOU HEARD ABOUT THE DIAL ACCESS CARRELS?

YES — 95.76%

NO — 4.24%

2) HAVE YOU USED THE DIAL ACCESS CARRELS?

YES — 66.34%

NO — 33.66%

3) HOW HELPFUL WERE THE TAPES?

NOT AT ALL — 24.16%

AVERAGE — 58.47%

VERY HELPFUL — 17.37%

DIAL ACCESS TROUBLE EVALUATION REPORT **CHART 7**

DATE 1969	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
10/15	48	E-201	Shafer			Touch Tone unit panel stolen -wiring exposed		
10/15	41-43	E-201	Shafer			Cannot turn monitors off	Contractor had not provided any method for turning monitors off when not in use -(Not provided for in specs)	
10/15	132	N-201	Hartree			Picture rolls		
10/16		N-201	Krause			Defective headset		
10/16		H-120				Decks 2 & 7 do not stop playing even when switching is off		
10/27	25,26 28,31	W-201	English			Not working		
10/27	32	W-201	English			Picture but no sound		
10/27	33	W-201	English			Screws removed from monitor enclosure and pad		
10/27	35,36	W-201	English			Not working		
10/27	16,19	N-201	Krause			Not operating at all		
10/28	8	S-201	McKenna			Video but no audio		
10/28	2	S-201	McKenna	1142		Can't receive #1142		
10/28		S-201	McKenna	1144		Two programs coming in at same time		
10/28		E-201	Shafer			Nothing working in Michael Resource Center		
10/29	13	N-201	Krause			Monitor out		
10/29		N-201	Krause			None of stations working	System tied up by student dialing random numbers	D. Forsche

DIAL ACCESS TROUBLE EVALUATION REPORT - Page 2

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1969 10/29	50	H-200	Madden			Out		
10/29		S-201	McKenna	1119		Not in operation		
10/29		S-201	McKenna	31		Not in operation		
10/29	10	S-201	McKenna		How to Put in a Zipper	Picture upside down	Tape had been turned end for end because wear at front and was not bulk erased before new program was recorded leaving old program upside down	
10/29	42	E-201	Shaffer			No audio		
10/29	38,43	E-201	Shaffer	1119		Sound but no picture		
10/29		E-201	Shaffer			All new carrels seem very sluggish in response to dialing		
10/30	2,4,6	S-201	McKenna			Out completely		
10/30	27,28 29,30	E-201	Shaffer			No dial tone, not working at all		
10/31	2,3,4	S-201	Madden			Out		
10/31			Madden			All audio programs out		
10/31	27	W-201	Geyer			Monitor pushed in	Cabinet mounting screws loose	
10/31	38	E-201	Student	1111		Dials out and recues after several sentences, will not finish program		
11/3		S-201				No video		
11/3		E-201				Weak voice		
11/4		N-201				No video		

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1969 11/4		W-201				No video, numbers off carrels		
11/6		N-201	Kaplan			No video		
11/6		N-201	Kaplan			Audio OK, no video		
11/6	18	N-201	Kaplan			Difficulty dialing video monitor out; audio OK		
11/6	28	E-201	Wes. Turner			Monitor dead		
11/12		N-201	Kaplan			All audio has echo or double voicing		
11/13		E-201	Shaffer			No video at all till Friday afternoon		
11/14		H-200				No video for a week		
11/14	48	E-201	Shaffer			Touch Tone dial stolen		
11/14	49	H-200	Madden			Video out		
11/14	47	E-201	Madden			Pad screws missing		
11/14		E-201	Madden			All Chester monitors open knobs missing		
11/17			Mrs. Bourne		Power Volleyball	Not working		
11/18		N-201	Kaplan		Glass Menagerie	Off for 30 minutes		
11/20		N-201	Kaplan			No video	Testing	
11/21		E-201	Hartrey	1129	Geometry	No video		
11/24		N-201	Kaplan			No video till afternoon		

DIAL ACCESS TROUBLE EVALUATION REPORT - Page 4

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1969 11/24		N-201	Kaplan			No audio	Bill K. did not get dubbing done	
11/24		W-201	Madden			3 video carrels out		
11/25		N-201	Kaplan	1129		No video	Deck 2 turned self off	
11/25		N-201	Kaplan	32	Drivers Ed.	No audio		
11/26		N-201	Hartrey		Drivers Ed.	No video		
12/1		N-201	Hartrey		Drivers Ed.	No video	Machine being used for dubbing "Energy and Movement" till 9:00	
12/1		N-201	Krause		Computer Instruction	No program on	Could not make successful dub from Ampex to IVC format	
12/1		N-201	Kaplan	1119	Drivers Ed.	Unable to get program		
12/1	14	N-201	Krause			No video or audio		
12/1	18	N-201	Krause		Drivers Ed.	Sound not in sync. with picture		
12/1	43	E-201		1119		Audio but no video on 1119		
12/1	44	E-201				Vertical roll, control can't correct		
12/1	25	W-201				Weak contrast and hold(horizontal)		
12/2	25	W-201				No video		
12/2		N-201	Krause			Do we still have Headset #13 for repair?		
12/3		H-120				Audio Deck #2 re-wound off reel		
12/3		H-120	Geyer	1119 & 31		No video	VTR stalled in middle of program	

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1969 12/3		E-201	Shafer			3 touch pad screws removed		
12/5		E-201	Shafer			Power Volleyball not changed-Drivers Ed. still on		
12/8	All					No video programs till after programs dubbed		
12/9		S-201	McKenna			Front turn off monitor		
12/9		E-201	Young			No video	VTR's turned selves off	
12/9	48	E-201	Shafer			Cover plate removed fire built in hole by student		
12/9	47	E-201	Shafer			Escutcheon plate		
12/10	41	E-201	Shafer			No video, audio OK		
12/10	45	E-201	Shafer			Low brightness		
12/10	42	E-201	Shafer			Knob missing		
12/12	2, 4	S-201	McKenna			No pictures at all		
12/15		N-201	Shaffer			No video from 8:00 till 11:00	Tapes not dubbed	
12/15	9	S-201	McKenna			Monitor smoking and cabinet hot	Circuit board charred -Service tech. from AV had put oversized fuse in monitor, ½ amp. Did not blow when trouble happened	
12/15		H-120				Deck #5 won't rewind and recue		
12/16		H-120			Molecular Arch.	Pinch roller on IVC deck won't release		
12/16		N-201	Krause		Molecular Arch.	No video	IVC Deck #2 out	
12/16					Moleuclar Arch.	Lines through picture	Had to make new dub-IVC deck badly creased & wrinkled tape	

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1969 12/16	10	S-201	McKenna			Monitor hot	Monitor burned up because of oversized fuse	
1970 1/5		E-201	Shafer	1115 1117		Audio very weak		
1/8						Wrong access numbers for Chester programs, 14, 15, 16		
1/13	4	E-201	Shafer			Caught student taking screws out of carrel and playing with wires		
1/16		E-201	Alexander	1129		No video	IVC deck failed to rewind at end of program and ran off reel	
1/16		H-120				Audio Deck #2 operating at slower than normal speed		
1/16		H-120				Audio Deck #2 stopped in middle of program		
1/16		H-120				IVC Deck #1 dropped loop of tape		
1/28		H-120				VTR 1 wrinkled tape after just returning from plant repair facility		
1/29	40	E-201	Geyer			Can't access programs access light does not light		
1/29	46	E-201	Geyer			No picture, bad audio		
1/29	37	E-201	Geyer			Audio but no picture		
1/29		H-120	Geyer			VTR-1 creased tape severely		
1/29	28	W-201	Geyer			Poor audio, no picture		
1/29	26	W-201	Geyer			No picture		
1/30		N-201	Hartrey			No video		
1/30	8	S-201	Geyer			Monitor out, audio OK on #31, can't access audio only programs		

DATE 1970	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1/30	5	S-201	Geyer			No raster		
2/2		W-201	English			4 out of 7 video monitors not working		
2/2		H-120	Geyer			IVC Deck #2 snapped leader off and chewed tape during auto recue function		
2/3	40	E-201	Shafer			Completely out		
2/3	37,46	E-201	Shafer			No video		2/3/70
2/3	47	E-201	Shafer			No faceplate		
2/3	43	E-201				No audio on certain programs		2/3/70
2/4	14	E-201				Rolling picture		
2/4	All					No video		
2/5	All					No video except "Circular Flow" program		
2/5		S-201	McKenna	1122,1123, 1148,1132		Getting other programs than ones listed		
2/5		E-201	Shafer			Wrong program on		
2/5	All	H-120			African Folklore	Not on due to technical problems with deck		
2/6	20	N-201	Hartrey			No video		
2/6	20	N-201	Hartrey			No vertical hold		
2/6	14	N-201	Hartrey			Screws out of bottom of carrel		
2/6	All	N-201	Kaplan			No video	Tape came off reel on deck #2	

DATE 1970	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
2/6	All			1129		No video	Tape came off reel on IVC #2	
2/9	24	N-201	Krause			Faceplate off		
2/9	21	N-201	Madden	32		Can't access program #32		
2/9	20	N-201	Madden			Faceplate loose		
2/9	All					No video programs till 11:00		
2/9	All					No audio till 11:30		
2/9	All	N-201	Krause	1113		Chester program 1113 tape went bad		
2/9	All	H-120				Tape ran off IVC deck		
2/10	14	N-201	Madden			Screws from door missing		
2/10	16	N-201	Madden			Vertical size flat		
2/11		N-201	Kaplan			Chester Decks #1-3-4 no audio on all but one math program		
2/11	All	W-201	English			No picture or sound on VTR, no sound on other		
2/11	All	H-120				IVC Deck #2 ran off supply reel		
2/13	All	H-120				VTR-2 fast forward off reel (12:30)		
2/13	All	H-120				VTR-2 fast forward off reel (1:30)		
2/13	All	H-120				VTR-2 fast forward off reel(3:10)		
2/16	16	N-201	Hartrey			Nothing		

DIAL ACCESS TROUBLE EVALUATION REPORT - Page 9

DATE	STAT. NO.	LOC.	REPORT BY	ACCESS NO.	PROGRAM TITLE	SYMPTOM	TROUBLE	SERVICE RESTORED
1970 2/16	17	N-201	Hartrey			Picture rolling		
2/16	All	H-120				IVC Deck #2 fast forward off reel (2:20)		
2/16	All	H-120				IVC Deck #2 fast forward off reel (2:35)		
2/17	40	E-201	Madden			No video		
2/17		W-201	Madden			2 carrels out		

CHART 8

STUDENT USE SURVEY QUESTION NO. 3	"HAVE YOU USED THE DIAL ACCESS CARRELS?"		
	NO. OF RESPONSES	YES	NO
BEARDSLEY SCHOOL			
BOYS	590	70.20 %	29.79 %
GIRLS	455	62.63 %	37.36 %
MICHAEL SCHOOL			
BOYS	385	68.31 %	31.68 %
GIRLS	357	66.38 %	33.61 %
BACON SCHOOL			
BOYS	486	66.05 %	33.95 %
GIRLS	382	60.99 %	39.00 %
BOLTWOOD SCHOOL			
BOYS	403	67.49 %	32.51 %
GIRLS	385	59.48 %	40.52 %
BEARDSLEY SCHOOL	1045	66.56 %	33.43 %
MICHAEL SCHOOL	742	67.38 %	32.61 %
BACON SCHOOL	868	63.82 %	36.17 %
BOLTWOOD SCHOOL	788	63.58 %	36.42 %
E.T.H.S. BOYS	1864	69.74 %	30.26 %
E.T.H.S. GIRLS	1579	62.31 %	37.68 %
E.T.H.S. TOTALS	3443	66.34 %	33.66 %

STUDENT USE SURVEY QUESTION NO.3	"HAVE YOU USED THE DIAL ACCESS CARRELS?"		
	NO. OF RESPONSES	YES	NO
12th GRADE			
BEARDSLEY SCHOOL	227	43.17 %	56.82 %
MICHAEL SCHOOL	152	44.73 %	55.26 %
BACON SCHOOL	165	44.84 %	55.16 %
BOLTWOOD SCHOOL	175	35.43 %	64.57 %
11th GRADE			
BEARDSLEY SCHOOL	233	69.95 %	30.04 %
MICHAEL SCHOOL	149	71.81 %	28.18 %
BACON SCHOOL	214	62.14 %	37.86 %
BOLTWOOD SCHOOL	140	77.86 %	22.14 %
10th GRADE			
BEARDSLEY SCHOOL	249	75.10 %	24.89 %
MICHAEL SCHOOL	216	58.34 %	41.66 %
BACON SCHOOL	252	63.09 %	36.91 %
BOLTWOOD SCHOOL	233	62.66 %	37.34 %
9th GRADE			
BEARDSLEY SCHOOL	236	76.69 %	23.30 %
MICHAEL SCHOOL	225	88.44 %	11.55 %
BACON SCHOOL	237	79.32 %	20.68 %
BOLTWOOD SCHOOL	240	76.67 %	23.23 %

CONTINUED

STUDENT USE SURVEY QUESTION NO. 3	"HAVE YOU USED THE DIAL ACCESS CARRELS?"		
	No. of RESPONSES	YES	NO
12th GRADE	719	42.00 %	58.00 %
11th GRADE	736	69.57 %	30.43 %
10th GRADE	950	65.05 %	34.95 %
9th GRADE	938	80.17 %	19.83 %

HIGHEST % OF "YES" ANSWERS (USERS)

BEARDSLEY BOYS - 70.20 %

MICHAEL 9th GRADE - 88.44 %

E.T.H.S. 9th GRADE - 80.17 %

LOWEST % OF "YES" ANSWERS (USERS)

BOLTWOOD GIRLS - 59.48 %

BOLTWOOD 12th GRADE 35.43 %

E.T.H.S. 12th GRADE 42.00 %

CHART 9

STUDENT USE SURVEY QUESTION NO. 4	"HOW MANY TIMES HAVE YOU USED THE DIAL ACCESS CARRELS?"			
	No. of RESPONSES	1-5 TIMES	6-15 TIMES	16+ TIMES
BEARDSLEY SCHOOL	656	75.76%	21.03%	3.20
BOYS	358	66.76%	28.21%	5.03
GIRLS	298	86.58%	12.42%	1.00
MICHAEL SCHOOL	559	68.69%	25.04%	6.26
BOYS	275	76.00%	20.63%	3.63
GIRLS	284	61.62%	29.58%	8.80
BACON SCHOOL	593	76.22%	19.22%	4.55
BOYS	352	70.17%	22.73%	7.10
GIRLS	241	85.06%	14.11%	.83
BOLTWOOD SCHOOL	542	77.31%	18.08%	4.61
BOYS	294	70.06%	23.13%	6.80
GIRLS	248	85.89%	12.10%	2.01
E.T.H.S. 12th GRADE	386	75.91%	20.72%	3.37
E.T.H.S. 11th GRADE	544	84.93%	14.15%	.92
E.T.H.S. 10th GRADE	655	74.35%	20.00%	5.65
E.T.H.S. 9th GRADE	765	66.67%	26.40%	6.93
E.T.H.S. TOTALS	2350	74.55%	20.85%	4.59

STUDENT USE SURVEY QUESTION No.4	"HOW MANY TIMES HAVE YOU USED THE DIAL ACCESS CARRELS?"			
	NO. OF RESPONSES	1-5 TIMES	6-15 TIMES	16+ TIMES
12th GRADE				
BEARDSLEY SCHOOL	104	79.80 %	16.35 %	3.85
MICHAEL SCHOOL	107	62.61 %	34.57 %	2.80
BACON SCHOOL	92	78.26 %	21.74 %	0
BOLTWOOD SCHOOL	83	85.54 %	7.23 %	7.23
11th GRADE				
BEARDSLEY SCHOOL	171	82.46 %	16.96 %	.58
MICHAEL SCHOOL	114	85.96 %	13.15 %	.87
BACON SCHOOL	141	90.78 %	7.80 %	1.42
BOLTWOOD SCHOOL	118	80.51 %	18.64 %	.85
10th GRADE				
BEARDSLEY SCHOOL	200	67.50	28.00	4.50
MICHAEL SCHOOL	135	77.77	14.07	8.14
BACON SCHOOL	167	79.04	16.77	4.19
BOLTWOOD SCHOOL	153	75.16	18.30	6.54
9th GRADE				
BEARDSLEY SCHOOL	181	76.24	19.89	3.87
MICHAEL SCHOOL	203	56.15	33.99	9.85
BACON SCHOOL	193	62.17	28.50	9.32
BOLTWOOD SCHOOL	188	73.40	22.34	4.26

STUDENT USE SURVEY QUESTION No. 4	"HOW MANY TIMES HAVE YOU USED THE DIAL ACCESS CARRELS?"
HIGHEST % IN 16+ GROUP:	
MICHAEL 9th GRADE -	9.85 %
BACON 9th GRADE -	9.32 %
MICHAEL GIRLS -	8.80 %
MICHAEL 10th GRADE -	8.14 %
LOWEST % IN 16+ GROUP:	
BACON 12th GRADE -	0 %
BEARDSLEY 11th GRADE -	.58 %
BACON GIRLS -	.83 %
BOLTWOOD 11th GRADE -	.85 %

CHART 10

STUDENT USE SURVEY QUESTION NO. 6	"WAS YOUR LISTENING VOLUNTARY, RECOMMENDED, OR ASSIGNED?"			
	NO. OF RESPONSES	VOLUNTARY	RECOMMENDED	ASSIGNED
BEARDSLEY SCHOOL	737	40.69 %	22.12 %	37.18
BOYS	409	51.43 %	21.27 %	27.38
GIRLS	328	27.44 %	23.17 %	49.38
MICHAEL SCHOOL	598	33.77 %	21.90 %	44.31
BOYS	320	44.06 %	21.84 %	34.06
GIRLS	278	21.94 %	21.94 %	56.11
BACON SCHOOL	636	46.69 %	19.02 %	34.27
BOYS	386	53.62 %	19.68 %	26.68
GIRLS	250	36.00 %	18.00 %	46.00
BOLTWOOD SCHOOL	585	39.14 %	16.58 %	44.27
BOYS	314	50.64 %	17.20 %	32.16
GIRLS	271	25.83 %	15.87 %	58.30
E.T.H.S. TOTALS	2556	40.22 %	20.03 %	39.75
12th GRADE-	385	48.57 %	16.62 %	34.81
11th GRADE-	585	33.16 %	22.39 %	44.44
10th GRADE-	747	43.10 %	21.69 %	35.21
9th GRADE-	839	38.74 %	18.47 %	42.79

CONTINUED

STUDENT USE SURVEY QUESTION No. 6	"WAS YOUR LISTENING VOLUNTARY, RECOMMENDED, OR ASSIGNED?"			
	NO. OF RESPONSES	VOLUNTARY	RECOMMENDED	ASSIGNED
12th GRADE				
BEARDSLEY	107	46.73 %	20.56 %	32.71
MICHAEL	92	45.65 %	18.47 %	35.86
BACON	97	54.63 %	18.55 %	26.80
BOLTWOOD	89	47.19 %	7.86 %	44.94
11th GRADE				
BEARDSLEY	201	33.83 %	26.86 %	39.30
MICHAEL	123	22.76 %	22.76 %	54.44
BACON	138	48.55 %	18.11 %	33.33
BOLTWOOD	123	25.20 %	19.51 %	55.28
10th GRADE				
BEARDSLEY	241	39.83 %	19.50 %	40.66
MICHAEL	154	44.80 %	31.16 %	24.02
BACON	190	48.94 %	16.31 %	34.73
BOLTWOOD	162	39.51 %	22.22 %	38.27
9th GRADE				
BEARDSLEY	188	45.74 %	21.28 %	32.98
MICHAEL	229	27.51 %	16.59 %	55.88
BACON	211	39.81 %	22.27 %	37.91
BOLTWOOD	211	43.60 %	14.22 %	42.18

STUDENT USE SURVEY QUESTION NO.7	"IF YOU HAVE NOT USED THE DIAL ACCESS CARRELS, CHECK THE REASON(S) MOST NEARLY CORRECT FOR YOU."							
	NUMBER OF RESPONSES	I HAD NO REASON TO USE THEM	EQUIPMENT WASN'T WORKING	I PREFERRED TO USE SOMETHING ELSE	I DIDN'T LIKE WHAT I HEARD ABOUT THEM	I DON'T KNOW HOW TO USE THEM	I DON'T HAVE TIME	I DON'T USE RESOURCE CENTER
BEARDSLEY SCHOOL	584	48.80%	6.33%	12.16%	2.74%	7.36%	8.90%	13.69%
BOYS	297	48.15%	5.72%	12.79%	4.04%	6.06%	9.09%	14.14%
GIRLS	287	49.48%	6.97%	11.50%	1.39%	8.71%	8.71%	13.24%
MICHAEL SCHOOL	436	44.72%	7.57%	12.39%	2.75%	9.63%	12.39%	10.55%
BOYS	207	47.83%	7.25%	14.01%	2.90%	6.27%	11.60%	10.14%
GIRLS	229	41.92%	7.86%	10.92%	2.62%	12.66%	13.10%	10.92%
BACON SCHOOL	596	45.47%	7.55%	12.58%	2.35%	8.89%	8.05%	15.10%
BOYS	302	46.02%	9.27%	12.35%	2.98%	7.28%	6.28%	15.89%
GIRLS	294	44.89%	5.78%	12.92%	1.70%	10.54%	9.86%	14.21%
BOLTWOOD SCHOOL	548	42.70%	11.68%	11.68%	1.46%	10.22%	10.22%	12.04%
BOYS	249	48.59%	11.65%	14.05%	2.41%	6.42%	8.03%	8.83%
GIRLS	299	37.79%	11.70%	9.70%	.67%	13.38%	12.04%	14.71%
E.T.H.S. TOTALS	2164	45.51%	8.27%	12.20%	2.31%	8.96%	9.70%	13.03%

CHART II

STUDENT USE SURVEY QUESTION No.7	"IF YOU HAVE NOT USED THE DIAL ACCESS CARRELS, CHECK THE REASON(S) MOST NEARLY CORRECT FOR YOU."							
	NUMBER OF RESPONSES	I HAD NO REASON TO USE THEM	EQUIPMENT WASN'T WORKING	I PREFERRED TO USE SOMETHING ELSE	I DIDN'T LIKE WHAT I HEARD ABOUT THEM	I DON'T KNOW HOW TO USE THEM	I DON'T HAVE TIME	I DON'T USE RESOURCE CENTER
12th GRADE- BEARDSLEY	224	48.66 %	4.46 %	7.59 %	2.68 %	7.59 %	8.03 %	20.98 %
MICHAEL	149	42.28 %	6.71 %	12.08 %	4.03 %	8.72 %	11.41 %	14.77 %
BACON	156	51.28 %	6.41 %	8.33 %	1.28 %	8.33 %	7.69 %	16.67 %
BOLTWOOD	187	46.52 %	8.02 %	9.09 %	2.14 %	9.09 %	6.95 %	18.18 %
11th GRADE- BEARDSLEY	121	48.76 %	6.61 %	11.57 %	3.30 %	8.26 %	8.26 %	13.22 %
MICHAEL	61	54.10 %	4.92 %	9.84 %	1.64 %	13.11 %	9.84 %	6.55 %
BACON	143	48.25 %	4.20 %	10.49 %	3.50 %	7.69 %	9.79 %	16.08 %
BOLTWOOD	84	32.14 %	22.62 %	14.28 %	1.19 %	5.95 %	15.48 %	8.33 %
10th GRADE- BEARDSLEY	119	47.90 %	7.56 %	16.81 %	1.68 %	5.80 %	12.68 %	7.56 %
MICHAEL	164	45.73 %	7.32 %	12.80 %	1.83 %	9.15 %	14.02 %	9.15 %
BACON	185	42.16 %	10.27 %	12.97 %	1.62 %	10.81 %	7.03 %	15.14 %
BOLTWOOD	165	43.03 %	10.91 %	10.30 %	1.21 %	7.88 %	14.54 %	12.12 %
9th GRADE- BEARDSLEY	120	50.00 %	8.33 %	16.66 %	3.33 %	7.50 %	7.50 %	6.67 %
MICHAEL	62	38.71 %	12.90 %	14.52 %	3.23 %	9.69 %	12.90 %	8.05 %
BACON	112	39.28 %	8.93 %	20.54 %	3.57 %	8.04 %	8.04 %	11.60 %
BOLTWOOD	112	43.75 %	10.71 %	16.07 %	.89 %	28.75 %	5.36 %	4.46 %

STUDENT USE SURVEY QUESTION NO. 7	"IF YOU HAVE NOT USED THE DIAL ACCESS CARRELS, CHECK THE REASON(S) MOST NEARLY CORRECT FOR YOU"							
	NUMBER OF RESPONSES	I HAD NO REASON TO USE THEM	EQUIPMENT WASN'T WORKING	I PREFERRED TO USE SOMETHING ELSE	I DIDN'T LIKE WHAT I HEARD ABOUT THEM	I DON'T KNOW HOW TO USE THEM	I DON'T HAVE TIME	I DON'T USE RESOURCE CENTER
12th GRADE	716	47.35%	6.28%	9.08%	2.51%	8.38%	8.38%	18.02%
11th GRADE	409	45.97%	8.80%	11.49%	2.69%	8.31%	10.51%	12.22%
10th GRADE	633	44.39%	9.16%	12.95%	1.58%	8.69%	11.85%	11.37%
9th GRADE	406	43.60%	9.85%	17.24%	2.71%	11.08%	7.88%	7.64%
E.T.H.S. BOYS	1055	47.58%	8.44%	13.17%	3.13%	6.54%	8.53%	12.61%
E.T.H.S. GIRLS	1109	43.55%	8.12%	11.27%	1.53%	11.27%	10.82%	13.44%
BEARDSLEY SCHOOL	584	48.80%	6.33%	12.16%	2.74%	7.36%	8.90%	13.69%
MICHAEL SCHOOL	436	44.72%	7.57%	12.39%	2.75%	9.63%	12.39%	10.55%
BACON SCHOOL	596	45.47%	7.55%	12.58%	2.35%	8.89%	8.05%	15.10%
BOLTWOOD SCHOOL	548	42.70%	11.68%	11.68%	1.46%	10.22%	10.22%	12.04%
E.T.H.S. TOTALS	2164	45.51%	8.27%	12.20%	2.31%	8.96%	9.70%	13.03%
		1ST	6TH	3RD	7TH	5th	4th	2nd

STUDENT USE SURVEY QUESTION No. 2	"HOW DID YOU FIRST LEARN ABOUT THE CARRELS?"							
	NUMBER OF RESPONSES	FROM A TEACHER	FROM A LIBRARIAN	FROM OTHER STUDENTS	FROM A COUNSELOR	FROM A BULLETIN NOTICE	BY READING ABOUT THEM	BY SEEING THEM
BEARDSLEY SCHOOL	1831	24.30%	5.13%	19.66%	1.36%	7.37%	5.73%	35.82%
BOYS	933	21.44%	5.89%	21.86%	2.14%	6.75%	5.79%	36.23%
GIRLS	898	27.39%	4.34%	17.37%	1.89%	8.13%	5.63%	35.41%
MICHAEL SCHOOL	1493	26.86%	5.02%	21.63%	2.67%	7.10%	5.22%	31.48%
BOYS	749	23.36%	5.61%	23.77%	2.94%	8.01%	5.74%	30.57%
GIRLS	744	30.38%	4.44%	19.49%	2.42%	6.18%	4.70%	32.39%
BACON SCHOOL	1652	22.45%	7.26%	19.25%	1.75%	6.59%	6.53%	36.07%
BOYS	919	19.48%	8.05%	19.91%	1.85%	7.62%	6.64%	36.45%
GIRLS	733	26.19%	6.28%	18.55%	1.64%	5.32%	6.41%	35.61%
BOLTWOOD SCHOOL	1585	22.78%	6.81%	19.12%	2.27%	8.52%	6.06%	34.45%
BOYS	798	22.05%	7.02%	19.92%	2.63%	7.89%	6.26%	34.21%
GIRLS	787	22.23%	6.61%	18.30%	1.90%	9.15%	5.84%	34.68%
E.T.H.S. TOTALS	6561	24.05%	6.05%	19.88%	2.15%	7.39%	5.90%	34.50%

CHART 12

	NUMBER OF RESPONSES	FROM A TEACHER	FROM A LIBRARIAN	FROM OTHER STUDENTS	FROM A COUNSELOR	FROM A BULLETIN NOTICE	BY READING ABOUT THEM	BY SEEING THEM
12th GRADE - BEARDSLEY	422	21.09 %	4.03 %	19.19 %	2.13 %	9.95 %	8.76 %	34.83 %
MICHAEL	318	24.53 %	6.60 %	19.18 %	2.52 %	11.01 %	7.23 %	28.93 %
BACON	307	18.57 %	3.26 %	21.17 %	1.63 %	10.42 %	8.79 %	36.16 %
BOLTWOOD	357	17.64 %	5.04 %	17.09 %	1.40 %	12.88 %	9.80 %	36.13 %
11th GRADE - BEARDSLEY	475	27.27 %	5.28 %	19.45 %	1.90 %	6.98 %	4.75 %	34.46 %
MICHAEL	290	27.24 %	4.14 %	20.00 %	2.07 %	7.24 %	5.17 %	34.14 %
BACON	418	19.38 %	7.89 %	19.14 %	1.93 %	5.98 %	7.42 %	38.28 %
BOLTWOOD	298	26.51 %	3.02 %	19.46 %	2.68 %	9.06 %	5.03 %	34.23 %
10th GRADE - BEARDSLEY	475	24.63 %	4.63 %	18.10 %	.63 %	6.94 %	6.31 %	38.74 %
MICHAEL	453	22.96 %	4.19 %	23.18 %	4.42 %	8.17 %	5.52 %	31.57 %
BACON	503	24.06 %	6.76 %	18.09 %	2.18 %	6.76 %	6.76 %	35.39 %
BOLTWOOD	442	25.79 %	4.07 %	19.00 %	2.26 %	8.37 %	5.20 %	35.29 %
9th GRADE - BEARDSLEY	461	23.86 %	6.51 %	21.91 %	3.25 %	5.86 %	3.47 %	35.14 %
MICHAEL	432	32.41 %	5.32 %	22.92 %	1.39 %	3.01 %	3.47 %	31.48 %
BACON	424	26.41 %	10.14 %	19.58 %	1.18 %	4.25 %	3.77 %	34.67 %
BOLTWOOD	415	21.52 %	12.91 %	20.49 %	2.66 %	5.12 %	4.71 %	32.58 %

	NUMBER OF RESPONSES	FROM A TEACHER	FROM A LIBRARIAN	FROM OTHER STUDENTS	FROM A COUNSELOR	FROM A BULLETIN NOTICE	BY READING ABOUT THEM	BY SEEING THEM
E.T.H.S. BOYS	3399	21.48%	6.68%	21.30%	2.35%	7.50%	6.12%	34.57%
E.T.H.S. GIRLS	3162	26.82%	5.38%	18.37%	1.93%	7.27%	5.66%	34.56%
E.T.H.S. 12th GRADE	1404	20.44%	4.70%	19.09%	1.92%	11.04%	8.69%	34.12%
E.T.H.S. 11th GRADE	1479	24.88%	5.34%	19.49%	2.10%	7.17%	5.61%	35.43%
E.T.H.S. 10th GRADE	1873	24.34%	4.96%	19.54%	2.35%	7.53%	5.98%	35.30%
E.T.H.S. 9th GRADE	1805	25.87%	8.81%	21.22%	2.16%	4.60%	3.88%	33.46%

RANK ORDER OF FREQUENCY OF MENTION	1ST	34.57%	SAW CARRELS IN RESOURCE CENTER
	2ND	24.05%	HEARD FROM A TEACHER
	3RD	19.88%	HEARD FROM OTHER STUDENTS
	4th	7.39%	HEARD IN DAILY BULLETIN
	5TH	6.05%	HEARD FROM LIBRARIAN
	6TH	5.90%	READ ABOUT THEM
	7TH	2.15%	HEARD FROM A COUNSELOR

"TEACHER"	MENTIONED	MOST	FREQUENTLY	BY 9th GRADE;	LEAST BY 12th
"LIBRARIAN"	"	"	"	BY 9th GRADE;	" BY 12th
"COUNSELOR"	"	"	"	BY 10th GRADE;	" BY 12th
"BULLETIN"	"	"	"	BY 12th GRADE;	" BY 9th
"READING"	"	"	"	BY 12th GRADE;	" BY 9th
"SEEING	"	"	"	BY 11th GRADE;	" BY 9th

CHART 13

STUDENT USE SURVEY QUESTION No.5	"HOW HELPFUL WERE THE TAPES YOU SAW OR HEARD?"			
	NO. OF RESPONSES	NOT AT ALL	AVERAGE	VERY HELPFUL
BEARDSLEY SCHOOL	667	20.39 %	59.82 %	19.79 %
BOYS	362	20.71 %	58.29 %	20.99 %
GIRLS	305	20.00 %	61.64 %	18.36 %
MICHAEL SCHOOL	550	19.45 %	61.27 %	19.27 %
BOYS	294	20.06 %	59.52 %	20.40 %
GIRLS	256	18.75 %	63.28 %	17.96 %
BACON SCHOOL	602	24.91 %	58.80 %	16.27 %
BOYS	358	25.97 %	58.11 %	15.92 %
GIRLS	244	23.36 %	59.84 %	16.80 %
BOLTWOOD SCHOOL	565	32.39 %	53.80 %	13.80 %
BOYS	305	32.46 %	51.47 %	16.06 %
GIRLS	260	32.31 %	56.54 %	11.15 %
12th GRADE	387	32.82 %	50.90 %	16.28 %
11th GRADE	548	20.07 %	59.85 %	20.07 %
10th GRADE	676	22.01 %	62.50 %	15.49 %
9th GRADE	773	22.90 %	60.67 %	16.43 %
E.T.H.S. TOTALS	2384	24.16 %	58.47 %	17.37 %

CONTINUED

STUDENT USE SURVEY QUESTION NO. 5	"HOW HELPFUL WERE THE TAPES YOU SAW/HEARD?"			
	NO. OF RESPONSES	NOT AT ALL HELPFUL	AVERAGE	VERY HELPFUL
12th GRADE- BEARDSLEY	106	26.41 %	54.71 %	18.87 %
MICHAEL	90	30.00 %	52.22 %	17.77 %
BACON	99	31.31 %	54.55 %	14.14 %
BOLTWOOD	92	44.56 %	41.30 %	14.13 %
11th GRADE- BEARDSLEY	173	15.61 %	59.54 %	24.85 %
MICHAEL	116	12.06 %	68.10 %	19.82 %
BACON	139	27.33 %	55.41 %	17.26 %
BOLTWOOD	120	25.83 %	57.50 %	16.67 %
10th GRADE- BEARDSLEY	203	16.74 %	61.58 %	21.67 %
MICHAEL	141	19.85 %	61.70 %	18.43 %
BACON	172	26.74 %	61.64 %	11.62 %
BOLTWOOD	160	33.75 %	51.25 %	15.00 %
9th GRADE- BEARDSLEY	185	25.40 %	61.08 %	13.51 %
MICHAEL	203	18.71 %	61.08 %	20.19 %
BACON	192	18.22 %	60.95 %	20.83 %
BOLTWOOD	193	29.53 %	59.58 %	10.88 %

HIGHEST % MARKING "VERY HELPFUL"		HIGHEST % MARKING "NOT AT ALL HELPFUL"	
BEARDSLEY 11th GRADE	24.85 %	BOLTWOOD 12th GRADE	44.56 %
BEARDSLEY 10th GRADE	21.67 %	BOLTWOOD 10th GRADE	33.75 %
BEARDSLEY BOYS	20.99 %	BOLTWOOD BOYS	32.46 %
BACON 9th GRADE	20.83 %	BOLTWOOD GIRLS	32.41 %
MICHAEL BOYS	20.40 %	BACON 12th GRADE	31.41 %
E.T.H.S.	17.37 %	E.T.H.S.	24.16 %

CHART 14

COMPARISON OF AUDIO TAPE USE AND VIDEO TAPE USE

	No. of Video Tapes Available	No. of Users of Video Tapes	Average Number of Viewers per Tape	No. of Audio Tapes Available	No. of Users of Audio Tapes	Average Number of Users per Audio Tape	Approximate Ratio of Video Tape Users to Audio Tape Users
OCT. 27-31	2	253	76.5	29	606	20.8	76-20
NOV. 3-7	4	309	77.2	24	553	23.	77-23
NOV. 10-14 *	4	116	29	35	116	3.3	29-3
NOV. 17-21	4	74	18.5	31	299	9.6	2-1
NOV. 24-28 *	5	349	69.8	29	170	5.8	69-5
DEC. 1-5	5	339	67.8	34	150	4.4	67-4
DEC. 8-12	3	126	42	31	103	3.3	14-1
DEC. 15-19	3	86	28.6	32	81	2.5	14-1
JAN. 12-16 *	4	86	21.5	24	190	7.9	3-1
JAN. 19-23	4	178	44.5	20	103	5.1	44-5
FEB. 2-6	4	198	49.5	20	183	9.1	49-9
FEB. 9-13	3	87	29	32	265	8.2	29-8
FEB. 16-20	3	79	26.3	32	192	6.	13-3
FEB. 23-27 *	3	112	37.3	33	224	6.7	37-6
MAR. 2-6	3	126	42	30	408	13.6	42-13
MAR. 9-13	4	137	34.2	32	106	3.3	34-3
MAR. 16-20	2	85	42.5	31	534	17.2	42-5
MAR. 23-27	3	46	15.3	31	191	6.1	5-2

* IRREGULAR SCHEDULE, HOLIDAYS, HALF-DAY SESSIONS

CHART 15

PROGRAM USE SURVEY

(Number to right of program indicates number of times it was used)

October 27-31	Video	
	Combined Studies	152
	Process of Inquiry	80
	Audio	
	Greece: The Setting	69
	The Polis	69
	Political Evolution	44
	Athenian Democracy	65
	Athenian Democracy II	53
	Fall of Athenian Democracy	34
	Vocal Resonance	26
	Voice Quality	29
	Geometric Proof	18
	Geometric Proof II	18
	Bisectors of Angles	16
	1 Algebra Lesson 16	12
	1 Algebra Lesson 14	17
	Reader's Guide	20
	Introduction to the Odyssey	51
November 3-7	Video	
	Power Volleyball	247
	How to Measure a Pattern	29
	How to Measure Yourself	15
	Music: Breathing Technique	8
	Audio	
	Greece: Political Evolution of the Polis	72
	Athenian Democracy, Part I	61
	Athenian Democracy, Part II	56
	Fall of Athenian Democracy	61
	Greece: The Setting	49
	Greece: The Polis	78
	Vocal Resonance	25
	Voice Quality	24
	Motivation for Learning	28
	Motivation for Learning, Part II	13
	1 Algebra, Lesson 14	26
	1 Algebra, Lesson 15	28
	1 Algebra, Lesson 16	18
	1 Algebra, Lesson 18	3
	1 Algebra, Lesson 19	20
	1 Algebra, Lesson 20	9

November 12-14

Video

Counseling: Colleges of the West Coast	65
Power Volleyball	14
Computer Instruction	7
Elementary Geometric Instruction	3

Audio

How to Apply to College	11
Motivation for Learning	11
Motivation for Learning, Part II	7
1 Algebra, Lesson 18	3
1 Algebra, Lesson 19	3
Geometrical Proof, Part 1	6
Geometrical Proof, Part 2	3
Geometrical Proof, Part 3	2
Geometrical Proof, Part 4	3
Geometrical Proof, Part 5	5
Comparative Religions: Revelation	10
The Scriptures	10
Withdrawal of Individual	6
Church and State	6

November 17-26

Video

Driver Education	14
Elementary Geometric Construction	7
Power Volleyball	7
Counseling: Colleges of the West Coast	8

Audio

How to Apply to College	21
1 Algebra, Lesson 14	1
1 Algebra, Lesson 15	3
1 Algebra, Lesson 16	4
1 Algebra, Lesson 18	2
1 Algebra, Lesson 20	7
1 Algebra, Lesson 27	5
Comparative Religions: Revelation	64
The Scriptures	94
Withdrawl of Individual	12
Church and State	10
Modified Realism: Glass Menagerie	40

November 22-28	Video	
	Driver Education	289
	Power Volleyball	7
	Elementary Geometric Construction	25
	Audio	
	Modified Realism: Glass Menagerie	10
	1 Algebra, Lesson 23	6
	Geometry Unit II, Part 4	1
	Geometry Unit II, Part 5	4
	Comparative Religions: Withdrawl of Individual	7
	The Scriptures	10
	Buddhism	12
	Catholic Church Today	2
	Religion & Civilization	9
	Resonance	8
	Voice Quality	5
December 1-5	Video	
	Driver Education	56
	Audio	
	Modified Realism	3
	1 Algebra, Lesson 23	12
	1 Algebra, Lesson 22	7
	1 Algebra, Lesson 25	6
	Religion and Civilization	7
December 8-12	Video	
	English: I Like Words	54
	Sacred Music of Renaissance	57
	Audio	
	Modified Realism	7
	English Correction Sheet, Part III	5
	1 Algebra, Lesson 23	6
	Comparative Religions: Church and State	5
	Withdrawl of Individual	3
	Great Religions	9
	Catholic Church Today	4
	Christianity from St. Augustine	1
	Religion & Civilization	4
December 15-19	Video	
	English: I Like Words	19
	Molecular Architecture	63
	Audio	
	1 Algebra, Lesson 23	5
	Price of Revolution	8
	Mercantilism	5

MOST FREQUENTLY USED PROGRAMS

15D

April 6-10

VTR	African Empires	35
ATR	Driver Education #6	23
"	Driver Education #11	22
"	Social Studies: The Storm	27
"	Kariba	19
"	Social Studies: Revolution, Part I	12
"	Social Studies: Revolution, Part II	13
"	Social Studies: Revolution, Part III	13

April 13-17

VTR	Greek Tragedy	133
"	Library: Resource Center	77
"	Elementary Geometric Construction	24
ATR	Driver Education #13	31
"	Resource Center	48
"	Central Library	45
"	Card Catalogue	47
"	Readers Guide	46
"	Interesting People	17
"	Biographical Dictionaries	16
"	Encyclopedias	16
"	Safari	43
"	Imperialism in Africa, Part I	31
"	Imperialism in Africa, Part II	23

April 20-24

VTR	Driver Education	173
"	Greek Tragedy	67
"	Elementary Geometric Construction	42
"	Talk About Pollution	56
ATR	Driver Education #2	43
"	Driver Education #5	36
"	The Path of Body Fat	26
"	Body Temperature	31
"	Atomic Art Gallery	17
"	Compact Kidney Machine	32
"	Safari	15

April 27-May 1

VTR	Talk About Drugs	78
"	Elementary Geometric Construction, Part I	27
"	Elementary Geometric Construction, Part II	38
"	Chopin	35
ATR	Driver Education #8	44
"	Driver Education #10	27
"	Radiation and Behavior	34
"	Portable Power Pak	21
"	Social Studies: A Piece of Ground	34
"	Social Studies: The Zulu Chief	37
"	Social Studies: Mr. Man	37

15E

May 4-8

VTR	Alcoholism	29
"	Geometric Construction #3	11
"	Geometric Construction #2	17
"	Vinnie Burrows	13
ATR	Driver Education #7	27
"	Driver Education #12	22
"	Air Pollution Control	24
"	Computer Looks at Fingertips	16
"	More Drums of Passion, Part I	19
"	More Drums of Passion, Part II	18
"	Songs of New Nations, Part I	19
"	African Dance	15

May 11-15

VTR	Life Saving	33
"	Elementary Geometric Construction, Part III	36
"	Molecular Architecture	22
"	Vinnie Burrows	33
ATR	Air Pollution	12
"	Computer Looks at Fingertips	15

CHART 16

TEACHER REQUESTS FOR MEDIATED MATERIALS

	BEARDSLEY TEACHERS	MICHAEL TEACHERS	BACON TEACHERS	BOLTWOOD TEACHERS	CENTRAL ADMINISTRATION
1. VIDEO ON DIAL ACCESS	27	38	12	23	23
2. AUDIO ON DIAL ACCESS	45	55	62	11	24
3. CLOSED CIRCUIT TELEVISION	13	43	14	10	5
4. PORTABLE SONY VIDEO RECORD/PLAYBACK	6	19	10	26	1
5. OFF AIR TELEVISION	1	4	1	3	0
6. VIDEO RECORDINGS	2	6	1	17	14
7. SLIDE/TAPE/FILM	6	7	12	14	17
8. AUDIO PLAYBACKS	1	3	5	4	3
9. AUDIO DUBBINGS	10	12	12	3	9
10. AUDIO RECORDINGS	13	10	6	5	21

CHART 17

STUDENT USE SURVEY QUESTION NO. 1	"HAVE YOU HEARD ABOUT THE DIAL ACCESS CARRELS?"		
	NO. OF RESPONSES	YES	NO
BEARDSLEY SCHOOL	981	95.72 %	4.27 %
BOYS	510	96.47 %	3.53 %
GIRLS	471	94.90 %	5.09 %
MICHAEL SCHOOL	766	96.73 %	3.26 %
BOYS	396	97.22 %	2.77 %
GIRLS	370	96.21 %	3.78 %
BACON SCHOOL	904	93.91 %	6.08 %
BOYS	507	94.08 %	5.91 %
GIRLS	397	93.70 %	6.29 %
BOLTWOOD SCHOOL	814	96.93 %	3.07 %
BOYS	418	96.65 %	3.35 %
GIRLS	396	97.32 %	2.78 %
E.T.H.S.	3465	95.76 %	4.24 %
BOYS	1831	96.01 %	3.99 %
GIRLS	1634	95.47 %	4.53 %
12th GRADE	757	94.98 %	5.02 %
11th GRADE	758	95.12 %	4.88 %
10th GRADE	981	95.72 %	4.28 %
9th GRADE	969	96.90 %	3.10 %

STUDENT USE SURVEY	"HAVE YOU HEARD ABOUT THE DIAL ACCESS CARRELS?"		
	NO. OF RESPONSES	YES	NO
12TH GRADE			
BEARDSLEY SCHOOL	241	95.02 %	4.98 %
MICHAEL SCHOOL	162	96.29 %	3.70 %
BACON SCHOOL	176	92.04 %	7.95 %
BOLTWOOD SCHOOL	178	96.62 %	3.37 %
11th GRADE			
BEARDSLEY SCHOOL	243	93.00 %	6.99 %
MICHAEL SCHOOL	152	98.68 %	1.31 %
BACON SCHOOL	217	94.00 %	5.99 %
BOLTWOOD SCHOOL	146	96.57 %	3.42 %
10th GRADE			
BEARDSLEY SCHOOL	254	96.85 %	3.14 %
MICHAEL SCHOOL	222	95.49 %	4.50 %
BACON SCHOOL	265	94.33 %	5.66 %
BOLTWOOD SCHOOL	240	96.25 %	3.75 %
9th GRADE			
BEARDSLEY SCHOOL	243	97.94 %	2.05 %
MICHAEL SCHOOL	230	96.95	3.04 %
BACON SCHOOL	246	94.71	5.28 %
BOLTWOOD SCHOOL	250	98.00	2.00 %

HIGHEST % "YES" ANSWERS:	LOWEST % "YES" ANSWERS
BOLTWOOD GIRLS - 97.32%	BACON GIRLS - 93.70 %
MICHAEL BOYS - 97.22 %	BACON BOYS - 94.08 %
MICHAEL 11th GRADE - 98.68 %	BACON 12th GRADE - 92.04 %
BOLTWOOD 9th GRADE - 98.00 %	BEARDSLEY 11th GRADE - 93.00 %

CHART 18

TEACHER-PRODUCERS OF MATERIALS

By Schools and Subject Areas

Art (2)	Mr. Tresise	BO
	Mr. Lewis	MI
Boys' P.E. (0)		
Business Education (4)	Mr. Nickels	ADM
	Miss Onken	BO
	Mr. Osterkamp	MI
	Mr. Nelson	-
Combined Studies (2)	Mr. Nye	MI
	Mr. Hein	MI
Counseling (3)	Miss Fox	BE
	Mr. Bush	MI
	Mrs. Palmer	BA
Driver Education (2)	Mr. McAvoy	BE
	Mr. Boyer	MI
English (5)	Mr. Lumsden	BE
	Mrs. Baum	BA
	Mr. Markwell	MI
	Miss Richeimer	MI
	Miss Levin	BA
Foreign Language (6)	Mrs. Gahala	BE
	Miss McNutt	BO
	Mr. Harding	BE
	Dr. Gerwig	BO
	Mrs. Hammer	MI
	Miss Winer	BO
Girls P.E. (4)	Miss Henning	BO
	Miss Bray	-
	Mrs. Moore	MI
	Mrs. Stevens	BE
Health Education (1)	Miss Gamble	-
Home Economics (4)	Miss Wheeler	BO
	Mrs. Peters	BA
	Mrs. King	BO
Industrial Arts (2)	Mr. Clanton	BA
	Mr. Savageau	BE
Library (3)	Miss Swanson	MI
	Miss Johnson	BE
	Mrs. Krause	BE
Mathematics (3)	Mr. Hurst	BE
	Mr. Gestrin	MI
	Mr. Sharp	BE

Music (4)	Dr. Rosewall	BE
	Mr. Stromberg	-
	Mrs. Jacobson	MI
	Mr. Gillespie	BA
Science (7)	Mr. Dell'Aria	MI
	Mr. Peterson	BA
	Mr. Faro	BE
	Mr. Bauder	BA
	Mr. Mittleman	-
	Mr. Bils	BO
	Mr. Weber	-
Social Studies (6)	Mr. Amos	BA
	Mr. Mumbrue	BO
	Mr. Wood	BA
	Mr. Benson	BE
	Miss Simak	BO
	Miss Borg	BO
Special Education (4)	Mrs. West	MI
	Mrs. Knight	BO
	Mrs. Burkland	MI
	Mrs. Self	-
Speech Arts (9)	Mr. Siewerth	BO
	Mrs. Beemer	MI
	Mr. Neff	BO
	Mr. Waack	MI
	Miss Paterson	BE
	Mrs. Bauer	BE
	Dr. Galvin	MI
	Mrs. Rudy	-
	Mr. Madden	BA

- = not teaching here during 1969-70 school year

CHART 19

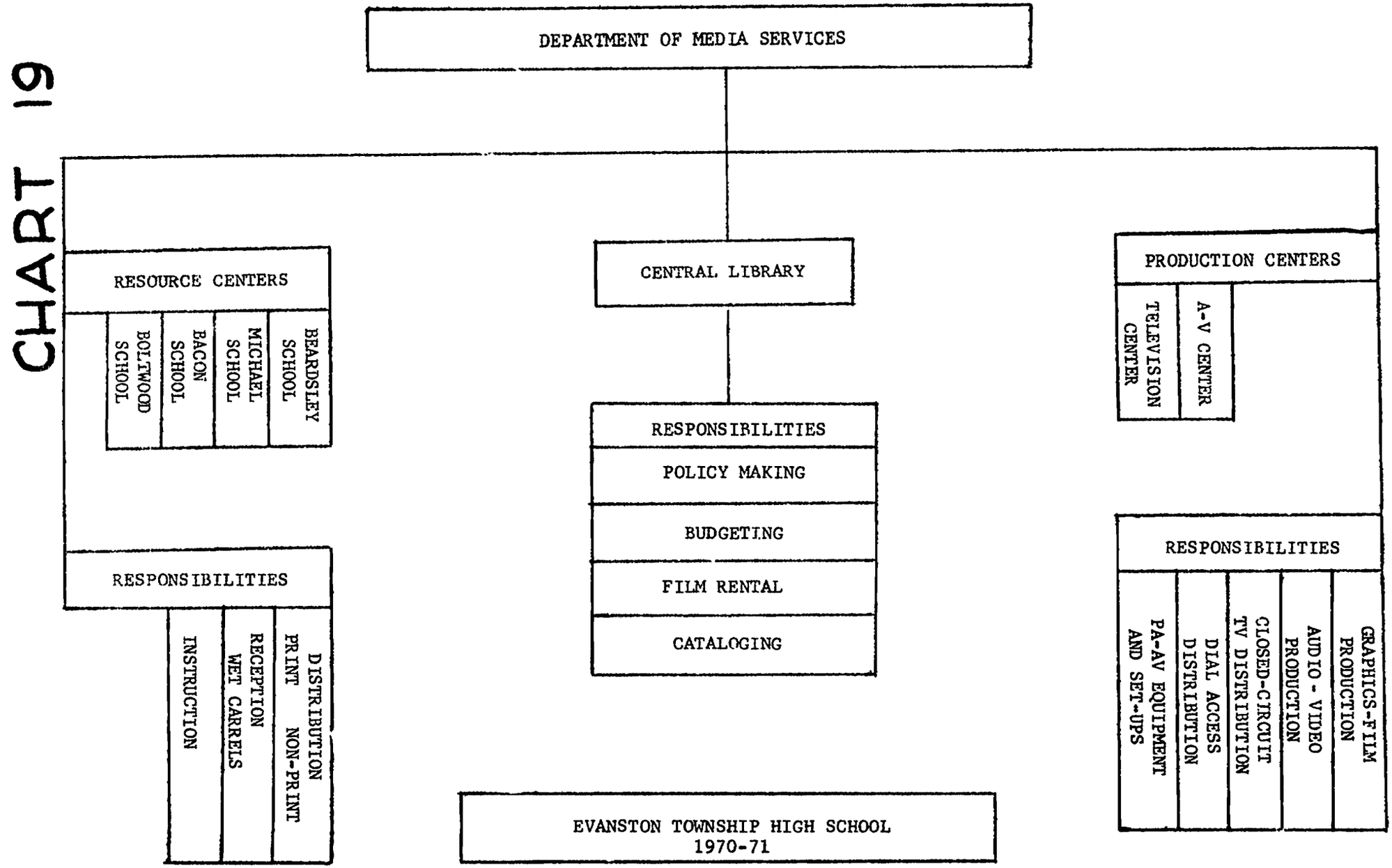
DEPARTMENT OF MEDIA SERVICES
RESOURCE CENTERS
BEARDSLEY SCHOOL
MICHAEL SCHOOL
BACON SCHOOL
BOLTWOOD SCHOOL
RESPONSIBILITIES
DISTRIBUTION PRINT NON-PRINT
RECEPTION WET CARRELS
INSTRUCTION
CENTRAL LIBRARY
RESPONSIBILITIES
POLICY MAKING
BUDGETING
FILM RENTAL
CATALOGING
PRODUCTION CENTERS
A-V CENTER
TELEVISION CENTER
RESPONSIBILITIES
GRAPHICS-FILM PRODUCTION
AUDIO - VIDEO PRODUCTION
CLOSED-CIRCUIT TV DISTRIBUTION
DIAL ACCESS DISTRIBUTION
PA-AV EQUIPMENT AND SET-UPS
EVANSTON TOWNSHIP HIGH SCHOOL
1970-71

CHART 20

JOB DESCRIPTIONS FOR A-V CENTER
H-113 1970-71

AUDIO-VISUAL TECHNICIAN

AV:

1. Maintains master inventory of AV equipment and location
2. Delivers equipment
3. Checks in and out all permanent loan equipment
4. Checks in and out: 16 mm projectors; opaque projectors; Super 8/8mm projectors; stereo/tape slide projectors; overhead projectors
5. Assists teachers with presentations when necessary (e.g. stereo/slides)
6. Recruit, train, and supervise boys who assist with AV
7. Is accountable for keys and their use by boys and/or other personnel
8. Trouble shoots
9. Keeps inventory of lamps, grease pencils, and transparency paper
10. Checks in new equipment on arrival, checks operation, assigns inventory number and placement for machines after consultation with Supervisor of Media Services
11. Assists teachers with film production

PA:

1. Maintains and operates sound system in auditorium
2. Performs regular PA set-ups for athletic events, assemblies, gyms, pools, night meetings such as PTA, banquets, etc.

SENIOR CLERK

1. Serves as receptionist for A-V Center
2. Receives and confirms requests for film showings and equipment
3. Prepares schedule for film showings
4. Files, checks out, and keeps inventory for carousels with tapes/slides
5. Checks out small equipment: stereo/tape recorder and Kodak carousel projector
6. Approves bills for film rental
7. Maintains record of audience reaction cards for film showings
8. Checks in and out pens, grease pencils, and transparency paper
9. Supervises VE student during day for approximately 15 hours per week
10. Handles mailing of films

ART CONSULTANT

1. Prepares and delivers lectures for classes
2. Records lectures for use in the future
3. Prepares transparencies and other graphics for teachers
4. Assists teachers in the preparation of graphics and transparencies

CHART 21

JOB DESCRIPTIONS FOR TELEVISION CENTER
H-119-H-125 1970-71

SUPERVISOR

1. Reviews DAIR requests
2. Reviews CCTV requests for playbacks
3. Reviews equipment requests (Title III cameras, etc.)
4. Determines responsibility for jobs not otherwise assigned
5. Plans/conducts in-service training for teachers via mini-clinics in cooperation with resource centers and central library
6. Has charge of preparing budget and signing requisitions
7. Initiates media production projects

TECHNICIAN

1. Is responsible for operations in TV and audio control rooms
2. Is responsible for audio dubbings
3. Dubs videotapes for IVC decks
4. Maintains audio and video equipment in the studios

SECRETARY

1. Serves as receptionist for the Television Center
2. Handles correspondence and bulletins
3. Prepares/maintains file of forms used for requests
4. Maintains inventory of information on each production
5. Maintains inventory of software and hardware
6. Receives DAIR requests
7. Types and distributes DAIR schedules
8. Types and distributes CCTV schedules
9. Types and distributes materials for mini-clinics
10. Types and files requisitions

PRODUCER-DIRECTOR

1. Prepares DAIR schedule
2. Produces/directs CCTV programs
3. Checks out CCTV contractual agreements
4. Dubs videotape for IVC decks
5. Consults with teachers on production
6. Produces audio tapes

TECHNICIAN

1. Dubs DAIR tapes to 4 track
2. Turns on system at 8 AM, and off at 4:30 PM
3. Checks system operation periodically
4. Checks language lab system decks
5. Services DAIR
6. Services ETHS sound systems in gyms, PA, and intercom
7. Services CCTV system
8. Services CCTV transmitters
9. Dubs videotape for IVC decks
10. Maintains sound systems in English team rooms and music resource center