

CAMPUS AUDIO-VISUAL PROGRAMS
AT NINE MID-WESTERN UNIVERSITIES, 1953

by

Quincy L. Atha

B.S. in Ed., Northeast Missouri State Teachers College, 1932
M.Ed., University of Missouri, 1941

Submitted to the Department of
Education and the Faculty of
the Graduate School of the
University of Kansas in partial
fulfillment of the requirements
for the degree of Doctor of
Education.

Advisory Committee:

Redacted Signature

Chairman

Redacted Signature

Redacted Signature

February, 1954

ACKNOWLEDGMENTS

This study was made possible by the generous assistance and cooperation of the following persons to whom I express my sincere appreciation:

The directors of the university audio-visual programs and their professional staffs, and particularly Mr. Fred S. Montgomery, Director of the Bureau of Visual Instruction, University of Kansas.

The members of the advisory committee, Dean Kenneth E. Anderson, Dr. William Cottle, and especially Dr. J. W. Twente, Chairman of the committee.

Quincy L. Atha

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
I. INTRODUCTION	1
What is Audio-Visual Instruction? . . .	5
Status of the Audio-Visual Program . . .	7
Setting the Scope of This Study	10
The Problem	12
II. PROCEDURE	14
Selection of Institutions	14
Information Required	16
Method and Materials Used to Obtain Information	17
Definition of Terms	22
Summary	24
III. AUDIO-VISUAL FACILITIES	25
Introduction	25
General Information	25
Characteristics of Campus Audio- Visual Programs	29
Development	30
Organization and Administration	33
University A	34
University B	35
University C	36
University D	37
University E	38
University F	38
University G	39
University H	40
University I	40
Finance	42
Staff	46
Selection of Materials	51
Production of Materials	53
Utilization of Materials	55
Audio-Visual Equipment	57
In-Service Training Programs	61

TABLE OF CONTENTS (Continued)

<u>CHAPTER</u>	<u>PAGE</u>
Physical Facilities	62
Research	65
Future Plans	66
Summary of Data	68
University A	69
University B	72
University C	75
University D	78
University E	80
University F	83
University G	85
University H	88
University I	90
Evaluation of the Various Audio-Visual Programs	93
IV. SUGGESTIONS AND RECOMMENDATIONS FOR IMPROVEMENT OF THE CAMPUS AUDIO-VISUAL PROGRAM AT THE UNIVERSITY OF KANSAS	101
Introduction	101
Audio-Visual Services Required	102
Audio-Visual Materials	103
Audio-Visual Equipment	112
Operators for Audio-Visual Equipment	113
Preview Service	115
Special Service for Students	116
In-Service Training Program	121
Research	123
Audio-Visual Facilities Needed	126
Organization and Administration	126
Budget	132
Physical Facilities	135
Staff	137
Summary	142

TABLE OF CONTENTS (Concluded)

	<u>PAGE</u>
BIBLIOGRAPHY	146
Books and Magazines	146
Catalogs and Bulletins	151
APPENDIX	154
Interviewing Guide	155

LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
1.	Universities--General Information for Year 1952-53	27
2.	Services Provided at Each University by the Audio-Visual Department	32
3.	Number of Employees in the Audio-Visual Departments	47
4.	Salaries of Audio-Visual Department Employees	48
5.	College Degrees Held by Full-Time Staff Members	49
6.	Hourly Wage for Part-Time Employees (Students)	50
7.	Audio-Visual Equipment	58
8.	Physical Facilities Available for Projection of Films	63
9.	Film Projections--Where and by Whom	64

LIST OF FIGURES

<u>FIGURE</u>		<u>PAGE</u>
1.	Organizational Chart for the Audio-Visual Department at University A	34
2.	Organizational Chart for the Audio-Visual Department at University B	35
3.	Organizational Chart for the Audio-Visual Department at University C	36
4.	Organizational Chart for the Audio-Visual Department at University D	37
5.	Organizational Chart for the Audio-Visual Department at University E	38
6.	Organizational Chart for the Audio-Visual Department at University F	38
7.	Organizational Chart for the Audio-Visual Department at University G	39
8.	Organizational Chart for the Audio-Visual Department at University H	40
9.	Organizational Chart for the Audio-Visual Department at University I	40

Chapter I

INTRODUCTION

The increasing emphasis on audio-visual aids in teaching suggests an examination of facilities available for using these aids in university instruction.

Basic to such an examination is the recognition of the vital role of communication in instruction and the various media used in teaching today. The effectiveness of the staff of a university and the quality of its graduates are, in considerable measure, dependent upon the quality of communication that takes place between the staff and its students. Wittich and Schuller state that:

A communication revolution has occurred in the last fifty years that is typified by the attention-demanding and communication techniques of radio, press, magazine, television, and theater. The school stands in the midst of this communication revolution and must be realistic in inquiring what its effects are on the habits, interests, and motivations of the average child in school today. The schools of today lag far behind contemporary society in developing techniques for the dissemination of information.¹

It is in the process of communication that the role of audio-visual aids to instruction takes on its importance. Communication of thoughts and ideas is the

1 Walter A. Wittich and Charles F. Schuller, "Audio-Visual Materials: Their Nature and Use," Harper & Brothers, New York, 1953, p. 12.

basis of education. To communicate we must use a medium. In modern society there are various media for communication. Some of these media are designated as audio-visual aids to instruction. Each aid has its special use or uses in the process of conveying thoughts and ideas from one person to another or from one person to many people. That no one medium of communication is superior to all others for all occasions is recognized but to understand and to use each one for its own particular advantage should be a goal of the teacher. That the "pill must be bitter to do good" is not accepted by the modern teacher yet there are those in education today who for one reason or another cling to teaching methods which do not embody the use of modern media for more effective communication.

In a J. Richard Street Lecture delivered in 1953 at Syracuse University, Don G. Williams stated that:

By clinging to "Academically respectable" teaching methods universities are failing students and democracy. We must face the fact that the university is failing in one of its major functions. It is failing to use the very tools that it helped develop--the tools of modern mass communication.²

His thesis is that because of increased enrollment, universities cannot justify teaching a mass audience by methods which are suited only to face-to-face contacts in a

² Don G. Williams, "Universities Are Failing Students and Democracy," Educational Screen, September, 1953, pp. 297, 312.

society that had time to spare.

In 1900 enrollments in higher education were less than 250,000; by 1920 about 600,000; in 1930 over 1,000,000; in 1940 about 1,500,000; and in 1950 the number had increased to 2,500,000.³ Even though enrollments in higher education have increased over tenfold since 1900, there is evidence that teaching methods in universities are very much the same today as they were in 1900. Typical of this evidence is a survey of 156 American universities conducted in 1949 by Dr. E. Van Allen of Bradley University, from which he drew two main conclusions: (1) That many universities have failed as yet to recognize the importance of modern teaching methods through the use of audio-visual materials; (2) That the majority of universities are still using the teaching methods of twenty, thirty, or fifty years ago.⁴

During the past three decades a steadily increasing use has been made of audio-visual aids in the elementary and secondary schools. Use of these aids at the universities has lagged far behind the elementary and secondary schools. This fact is pointed up by the following

3 Edgar W. Knight, "Today and Yesterday in Education," School Management, January, 1951.

4 E. Van Allen, "Are Universities Teaching Audio-Visually?," Educational Screen, September, 1949, p. 305.

quotation from the report of the President's Commission on Higher Education, published in 1947:

With the demonstration constantly before us of the appeal and the effectiveness of motion pictures, higher education has been inexcuseably slow in the development of visual education. That documentary and educational films could become teaching instruments of great power cannot be doubted. They are becoming so in the elementary and secondary schools. But all too often the visual education department of the university is relegated to the status of a self-supporting service enterprise, along with the cafeteria or bookstore, instead of being recognized as a vital educational unit worthy of a substantial budget and the encouragement of administration favor and interest.⁵

If the above statement is startling to those in higher education, it can only become more significant when considered beside an editorial by Greene written in 1931 in which he stated:

Acceptance of the visual idea in education has now become practically universal in this country and abroad. It is obvious waste to continue argument and evidence when the case is proved. The next step is to transform passive approval of the idea into nation-wide activity. Perhaps nine-tenths of the educators in the United States are still in the stage of lip-allegiance to the great idea. The task immediately ahead is to get action from that ninety-percent.⁶

While most of the evidence seems to show that universities have been slow to accept the various audio-

5 The President's Commission on Higher Education, "Higher Education for American Democracy," Harper & Brothers, New York, 1947, p. 98.

6 N. L. Greene, "Editorial," Educational Screen, 10:225, September, 1931.

visual aids as a means of improving instruction, the following report of the Library Advisory Committee on Audio-Visual Facilities of Columbia University would indicate that the problem has not escaped attention. This committee stated in its report to the Provost in 1949 that:

It is our considered opinion, although the use of audio-visual aids in advanced education is in its initial stages, its further growth is clearly implied. As an instructional adjunct, its effectiveness has been demonstrated on a large scale in the Governments' War Training Programs and elsewhere. Because it appears inevitable that audio-visual facilities will be called upon to play an increasingly important role in academic instructional programs and services, we feel that every effort should be made to facilitate such growth on this campus.⁷

While it is not the purpose of this study to answer the question of why teaching methods at universities have failed to keep pace with modern methods of communication, it is hoped an examination of the audio-visual facilities available will shed some light on why these communication media are not more widely used.

What is Audio-Visual Instruction?

Although the method involved in audio-visual instruction dates from the time when primitive man conveyed his thoughts by signs, drawings and other crude

7. Herbert Roland Jensen, "A Survey of Audio-Visual Activity at Columbia University and Recommendations for its Improvement," Doctor's Thesis, Teachers College, Columbia University, 1949.

imitations, it has been comparatively recent that professional writers have used the expression "audio-visual instruction."

Until time and use mature and clarify the expression, it is understandable that its purposes and materials may be misinterpreted.

In an article entitled, "Looking Ahead Twenty-Five Years in Audio-Visual Aids" Noel and Noel state that increased use by educators will establish audio-visual instruction as a carefully planned and integrated instructional use of motion pictures, slides, filmstrips, stereographs, study prints, micro-projections, radio, television, posters, maps, charts, graphs, objects, models, field trips and synthetic training devices. They believe that audio-visual instruction will be recognized as more than a matter of materials and techniques, or a new way to teach the same old things. The dynamics of the aids themselves--their content, organization, and manner of presentation will not only change our present methods of teaching but will to a great extent influence what is taught.⁸

Many colleges and universities offer one or more courses in the audio-visual field listing them, as a rule,

⁸ Francis Wright Noel and Elizabeth Goudy Noel, "Looking Ahead Twenty-Five Years in Audio-Visual Education," Educational Screen, 25:67-69, 79, February, 1946.

along with other methods or specialized courses in education. This implies that audio-visual instruction is a subject different or separate from other courses in the curriculum. According to McKown and Roberts, this implication is incorrect. They state that like composition, audio-visual instruction has no content of its own, but permeates all instruction. This definition of audio-visual instruction given by McKown and Roberts is most commonly accepted by educators today and will convey the meaning of the expression when used in this study.

It is a part of a teaching method designed to aid in the presentation of materials--knowledge, concepts, and ideas--in literature, mathematics, science, shopwork and other fields both curricular and extra-curricular, in order that they may be easily and clearly understood, appreciated, and applied. Audio-visual aids do not exist separately. They are not instructional in themselves. They are, in reality, only aids to instruction.⁹

Status of the Audio-Visual Program

While there are different methods of providing audio-visual services at universities, in general these services are provided by a central organization with a staff composed of professional, technical and clerical personnel. This organization may have a joint purpose in that it may also provide rental materials and professional

⁹ Harry C. McKown and Alvin B. Roberts, "Audio-Visual Aids to Instruction," McGraw Hill, New York, 1949, p. 8.

advice to schools and other organizations in the area. As will be shown later, the original function of many of these organizations was to provide materials on a rental basis for off-campus use.

These organizations are known by various titles such as "Bureau of Audio-Visual Aids," "Bureau of Visual Instruction," "Visual Aids Service" and "Visual Instruction Service."¹⁰ These titles usually denote the total audio-visual program which includes the campus and off-campus activities. That section of the organization which provides audio-visual services to the university campus is most frequently referred to as the campus audio-visual center or just audio-visual center. That title will be used throughout this study.

The campus audio-visual center may be a section of the larger audio-visual organization, with separate personnel and facilities, or the campus audio-visual services may be performed as a part of the total operation of the larger organizational unit. In some cases the campus audio-visual center has no connection administratively with the off-campus audio-visual service, each acting as a separate unit. Either or both units may be attached to a larger organizational unit within the university.

¹⁰ E. Van Allen, "Are Universities Teaching Audio-Visually?" Educational Screen, September, 1949, p. 305.

It will be shown later that there are several reasons why these different organizational patterns have developed, but perhaps the greatest influence in the development of audio-visual services came from the extension divisions of the universities. Therefore, most of the audio-visual units were originally and many still are attached to the extension divisions.¹¹ Since the function of the campus audio-visual center is quite unlike that of extension, a question arises regarding the advisability of this organizational arrangement.

Other than the kind of service rendered, the most noticeable difference between the two audio-visual units is the method of financing. In general, the campus audio-visual services are financed by appropriations from the universities while the off-campus services are financed from fees charged for rental of materials.¹²

These different methods of financing appear to be the chief reason for the ever-widening gap between these two audio-visual units in that the campus service with university appropriated funds tends toward a purely

11 Twenty-one out of 33 state universities reported that the audio-visual work was part of the extension program. Harry M. Kauffman, "Audio-visual Programs in State Universities," Educational Screen, 25:442, October, 1946.

12 Clarence Kurth, "A Survey of Audio-Visual Programs in Schools of Education of Selected Midwestern Universities," Doctor's Thesis, Indiana University, Bloomington, 1951.

educational service while the off-campus service which provides its own funds must of necessity embody many aspects of a commercial organization.

Setting the Scope of This Study

Prior to World War II a rather limited use was made of audio-visual aids at the University of Kansas.

While at that time there was no organized campus audio-visual program, there were materials and equipment available had instructors chosen to use them.

Records that show the amount of use of these aids during the twenties, thirties, and early forties are not complete, but indications are that less than five per cent of the university instructors made any use at all of projected audio-visual materials in their classes.

It should not be overlooked that many educators at that time thought there was little need for audio-visual aids at the college level. Freeman represented this viewpoint when he said: "It is not so necessary at the college level to dress a subject up and make it interesting through the mode of presentation." He advocated the use of audio-visual aids in the lower school for the interest they create as well as for the foundation for thought which they supply, but he believed it was less necessary to pay attention to the demands of interest in higher education.¹³

13 F. N. Freeman, "Some Principles on the Use of Visual

Regardless of what the reasons were for the lack of use, little change in attitude or use was noticed until after the war.

With the stimulus provided by the successful use of audio-visual aids in the war training programs and the production of more and better equipment and materials after the war, a noticeable increase in the use of these aids was experienced at this university.

Before 1948 an inter-departmental charge was made for audio-visual equipment and materials for class use. For the school year 1948-49 a special budget appropriation of \$1000 was made to the Bureau of Visual Instruction to provide free of charge some audio-visual services to campus classes. This appropriation was increased to \$2000 for the following year. The demands for these services continued to grow and on July 1, 1951, a separate section of the Bureau of Visual Instruction was created for the purpose of providing audio-visual aids for campus use. Certain facilities, materials and equipment were provided as well as a budget to carry on these services. With a staff that gave special attention to the problems of providing audio-visual aids to university classes the interest in and use of these aids grew at a more rapid rate. Facilities now available do not meet the present needs and there is every

indication the requests for more and better audio-visual aids will continue. How these facilities should be expanded, organized, administered, financed and staffed are important to a successful audio-visual program at this university.

Problem

It is the purpose of this study to examine the campus audio-visual programs at the University of Kansas and eight other midwestern universities in order to get information whereby the writer may make suggestions and recommendations for the improvement of the audio-visual services on this campus.

To state more specifically the problem is to (1) examine the organizational and developmental patterns of the campus audio-visual programs, (2) determine the audio-visual facilities available at these universities, (3) find out what uses are made of these facilities, (4) evaluate the various aspects of these campus audio-visual programs as to their usefulness and desirability in the universities' educational programs, and (5) make suggestions and recommendations for the improvement of the campus audio-visual program at the University of Kansas.

No attempt will be made to weigh the total audio-visual program of one university against that of another. If it were possible or wise to do so, no useful purposes

would be served as far as this study is concerned.

In order to obtain information whereby intelligent recommendations could be made for the improvement of the campus audio-visual program at the University of Kansas, four steps appeared to be necessary: (1) carefully select the institutions to be included, (2) obtain accurate information regarding the audio-visual programs, (3) examine the available literature regarding accepted audio-visual practices, and (4) evaluate all audio-visual practices as to their effectiveness in the University of Kansas program.

The institutions included in this study were selected on the basis of the criteria discussed in Chapter II. A personal visit to each campus was made by the writer. The audio-visual directors and other key personnel were interviewed and a personal examination of facilities was carried out.

Prior to making the visits the available literature was examined in order that the writer would be aware of accepted practices and procedures.

Evaluations of audio-visual practices observed were made on the basis of practices in use at the institutions visited, the literature in the field and the author's experience during the past five years in the campus audio-visual program at the University of Kansas.

Chapter II

PROCEDURE

The preliminary steps necessary for carrying out the proposed study were: (1) select the institutions to be included, (2) determine the specific information needed, (3) determine the method to be used to collect the desired information, (4) contact the audio-visual directors to secure their cooperation, and (5) obtain all necessary data.

Selection of Institutions

The primary purpose of this study was to enable the writer to obtain accurate firsthand information regarding the aspects of successful campus audio-visual programs in order to make suggestions and recommendations for the improvement of the campus audio-visual services at the University of Kansas. Therefore, the careful selection of institutions to be included was of extreme importance. It was recognized that no one institution excels in all phases of this service. The programs of several institutions had to be studied to find all phases of campus audio-visual services in operation.

The most important criteria for including institutions in this study were: (1) that they have well established audio-visual programs which have been in

operation for a sufficient length of time to present an established pattern, and (2) that they provide a campus audio-visual service for the university.

Other requirements, while of lesser importance, had to be considered. They were: (1) selecting institutions which had an overall educational program as much as possible like that of the University of Kansas, (2) selecting institutions within a desirable distance from the University of Kansas, (3) including some institutions that had pioneered in the audio-visual field, as well as some that had the advantage of well established patterns to follow when setting up their audio-visual departments, and (4) selecting institutions where the audio-visual personnel was willing to cooperate by furnishing all desired information.

The institutions selected for this study were (a) Indiana University, (b) Illinois University, (c) Iowa State College, (d) Iowa University, (e) Kansas University, (f) Missouri University, (g) Nebraska University, (h) Oklahoma A. & M. College, and (i) Oklahoma University.

While no one of these institutions meets all the above listed requirements, a study of the composite programs affords an excellent overview of all phases of campus audio-visual services. Hereafter in this study these institutions will be referred to by the letter preceding the name in this listing.

Information Required

In keeping with the stated purposes of this study, certain specific information was required.

First of all, information regarding the institution as a whole was needed. It is recognized that any department of a university must function within the organizational and administrative pattern set for all departments. To have obtained complete information about the institutions which in any way affected the growth and development of the audio-visual departments would have been an exhaustive task. Therefore, the limiting of this portion of the study to those aspects of the institutions which had a major influence on the campus audio-visual service was necessary. Those factors which were considered to have the greatest influence on the growth of the campus audio-visual service were (1) size, (2) administrative organization, (3) method of allocating funds, (4) curriculum, and (5) number and arrangement of buildings on the campus.

While only information of a general nature regarding each institution was considered essential, specific and detailed information was required regarding the institution's audio-visual program. To facilitate the collection of detailed information it was necessary to separate the total program into its various components. The development, organization and administration, finance, staff, materials,

equipment, facilities and housing, training programs, research, and future plans of these audio-visual centers all play an important part in the quality and quantity of audio-visual services available at each university.¹

Method and Materials Used to Obtain Information

The instrument most commonly used to obtain information of the type desired for this study is the questionnaire. The usual practice is to mail these questionnaires to the participants to be completed and returned to the investigator. While there were certain advantages in this method, it was felt that a personal visit to each campus of the institutions included in the study would contribute to the accuracy of the information obtained. It was also believed that a more detailed study, which could be done by visitation, was necessary.

In order to obtain complete and orderly information about each audio-visual center an interviewing guide of approximately two-hundred questions was prepared. The guide included general questions about each institution, as well as detailed questions regarding each component of the audio-visual program. A trial guide was prepared and discussed with the Director of Visual Instruction at Kansas University.

1 Fred Harclerod and William Allen, "Audio-Visual Administration," Wm. C. Brown Company, Dubuque, Iowa, 1951, pp. 18-65.

Changes were made as seemed desirable, and the revised guide was sent to four university audio-visual directors for criticisms. The guide was again revised and submitted to the thesis committee for approval. Sufficient copies of the final revision of the guide were prepared so that one could be sent to each participating institution at least a week in advance of the proposed visit. Space was left between each question on the guide to record answers, comments, and observations. Several questions from the guide were submitted to members of the University of Kansas, Bureau of Visual Instruction staff to get an estimate of the time required to complete the interview. All questions on the interviewing guide were completed for the University of Kansas by the writer and the Director of the Bureau of Visual Instruction.

It was determined that approximately twelve hours would be needed to cover the questions on the interviewing guide, and approximately four hours would be desirable for orientation and examination of the audio-visual facilities at each institution.

The audio-visual directors of each institution were contacted to obtain permission to visit them and to arrange a schedule which would allow approximately two days on each campus. The audio-visual directors encouraged the visit and insisted that the schedule be arranged for the

writer's convenience. All institutions were visited during the period of August 18 to October 10, 1953.

Since no particular order of visitation appeared to be advantageous, the schedule was arranged so as to require the least amount of travel and to fit in periods when the writer could best be away from his office. It was also desired to have enough time after visiting one or two institutions to go over the information obtained and to make changes in the procedure if necessary to obtain more complete information at the remaining institutions.

The schedule was arranged as follows: University C, August 18 and 19, 1953; University D, August 19 and 20, 1953; University I, September 15 and 16, 1953; University H, September 17 and 18, 1953; University G, September 25 and 26, 1953; University A, October 5 and 6, 1953; University B, October 7 and 8, 1953; University F, October 9 and 10, 1953.

The following persons were interviewed at each of the universities visited:

University A--Lawrence C. Larson, Director of the Audio-Visual Center; William Evers, Supervisor of the Campus Program; Carolyn Guss, Associate in Selection; Clarence M. Flaten, Supervisor of Photography; Edgar L. Richardson, Administrative Assistant; Kenneth C. Rugg, Associate in Administration; George F. Siddons, Supervisor of Audio Services; Warren D. Stevens, Supervisor of Production Planning; and Harvey Frye, Supervisor of Graphic Arts.

University B--Donald W. Smith, Director of Visual Aids Service.

University C--Herold L. Kooser, Director of Visual Instruction Service.

University D--John R. Hedges, Associate Director of the Bureau of Audio-Visual Instruction.

University F--C. W. Ballew, Supervisor of Audio-Visual Aids.

University G--Robert C. Stepp, Supervisor of the Bureau of Audio-Visual Instruction; K. O. Broady, Director of University Extension Division; and Wendell Hoffman, Director of Production Services.

University H--J. C. Fitzgerald, Director of the Audio-Visual Center; and Guy M. Fritchard, Assistant Director of the Audio-Visual Center.

University I--W. R. Fulton, Director of the Educational Materials Center; John J. Long, Supervisor of the Audio-Visual Program; and Robert de Kieffer, Associate Professor of Education.

While the above named persons were responsible for most of the information obtained, other personnel at each institution assisted in making reports available, conducting inspection tours, and explaining the various operations of the audio-visual programs.

Rapport was quickly and easily established and, as planned, the first half day was devoted to an inspection

of facilities and the observation of various aspects of the audio-visual program in operation. Time required to obtain answers to the questions on the interviewing guide ranged from eight to eighteen hours, depending on the size of the audio-visual program and the loquacity of the interviewees. Approximately half of the time spent in interviewing was used by the directors and the remaining time was used by key supervisory personnel.

Wherever possible, definite answers to questions were sought; however, qualifying statements were noted and the interviewee was given a chance to elaborate on significant aspects of his program. The majority of the questions in the interviewing guide (see Appendix A) were intended to draw the interviewee out rather than to get a yes or no answer.

Since an interviewing guide had been sent to each audio-visual director several days prior to the visit, the information necessary to answer some questions had been prepared before the interview. During the interview the answers that had been prepared in advance were discussed and answers to the remaining questions were obtained.

Catalogs, pamphlets, brochures, and other material regarding the university and its audio-visual program were obtained.

In every case the audio-visual director and his staff cooperated to the fullest extent. There was no

apparent hesitancy to release any information regarding the audio-visual center and its activities. When the interviews were completed the writer felt that he had secured adequate data to complete the study.

Definition of Terms

Film: A 16 or 35 mm. motion picture with or without a sound track and may be black and white or color. Unless otherwise noted, all references in this study will be to 16 mm. film.

Title: The name of a film used to denote different films in a library.

Print: A reproduction of the original film. A library may contain one or more prints of titles listed.

Reel: 400 feet of 16 or 35 mm. film.

Silent filmstrip: A continuous strip of 35 mm. film, usually containing 24, 48, 72, or 96 pictures. May be either black and white or color.

Sound filmstrip: A silent filmstrip plus a recording which is coordinated with the pictures.

Slide: A single picture prepared for projection. Most common sizes are 2 in. x 2 in. (35 mm.), and 3½ in. x 4 in. (standard). May be either black and white or color.

Graphic materials: Instructional materials such as maps, charts, diagrams, schematic drawings, graphs, posters, and cartoons.

Audio-visual materials: Any instructional materials used to enhance learning by sound or sight. Used in this study to include films, filmstrips, slides, recordings, and graphic materials.

Audio-visual equipment: Devices such as projectors, recorders, and screens to facilitate the use of audio-visual materials.

Audio-visual aids: Includes both audio-visual equipment and materials.

Audio-visual facilities: Includes personnel, budget, equipment, materials, and physical facilities such as projection and inspection rooms, storage facilities, office space, and laboratories.

Campus audio-visual service: A service provided to instructors and students which includes: providing information regarding the use and availability of audio-visual aids, arranging for rooms, equipment, and operators, and procuring, booking, and projecting audio-visual materials.

Instructor: Any university teacher regardless of rank.

SUMMARY

The primary purpose of this study was to enable the writer to obtain firsthand information regarding the aspects of successful campus audio-visual programs in order to make suggestions and recommendations for the improvement of the campus audio-visual services at the University of Kansas.

The institutions selected were: (A) Indiana University, (B) Illinois University, (C) Iowa State College, (D) Iowa University, (E) Kansas University, (F) Missouri University, (G) Nebraska University, (H) Oklahoma A. & M. College, and (I) Oklahoma University.

A personal visit was made to each campus to interview the audio-visual director and members of his staff and to inspect the audio-visual facilities. An interviewing guide which had been prepared and sent to the audio-visual directors in advance was used to help obtain orderly and complete information about each audio-visual program.

General information regarding the institution as well as detailed information about each phase of the audio-visual program was obtained.

Catalogs, pamphlets, and other materials regarding each university and its audio-visual program were obtained.

Chapter III

AUDIO-VISUAL FACILITIES

Introduction

On the basis of criteria discussed in Chapter II, eight universities in addition to the University of Kansas were selected for this study. These nine universities are referred to by the letters A through I.

The audio-visual programs at these universities were studied and the data reported are those obtained by the author through interviews with the directors and their staffs.

The topics discussed in this chapter are: (1) general information regarding the universities, and (2) characteristics of the audio-visual programs. Data regarding the audio-visual programs are reported under the following headings: (1) development, (2) organization and administration, (3) finance, (4) staff, (5) selection of materials, (6) production of materials, (7) utilization of materials, (8) equipment, (9) physical facilities, (10) in-service training programs, (11) research, and (12) future plans.

General Information

Inasmuch as the campus audio-visual facilities serve the entire campus, general information about each

university is important in order to evaluate the various audio-visual practices in relation to the total university program.

The institutions included in this study are all state supported institutions and are the major schools in the states represented. All are state universities except C and H, which are designated as state colleges. They were founded during the seventy year period from 1820 to 1890 and all started as the same type of institution they are today. Universities A, B, F, G, H, and I have separate governing boards, while C, D, and E are under the same governing board as all state schools for higher education. Universities B, C, F, G, and H are land grant institutions. B, F, and G have a college of agriculture and mechanical arts in connection with the university. C and H are colleges of agriculture and mechanic arts while A, D, E, and H are not land grant institutions and do not have an agriculture and mechanical arts college.

Comparative enrollment figures were difficult to obtain inasmuch as some universities report figures for the total enrollment for the entire year, others report figures for those enrolled who are working toward degrees, and still others report the greatest enrollment at any one time during the year. Likewise it was difficult to obtain comparative figures for the number of teachers employed. Some universities included assistant instructors, teaching fellows,

part-time instructors and laboratory assistants along with full-time teachers, while others reported only those with academic rank of instructor and above. Figures for Table 1 were those compiled by Raymond Walters and are considered by university registrars as being among the most reliable.¹

Table 1

Universities--General Information for Year 1952-53

University	Year Founded	Land Grant	No. of Students	No. of Teachers	Separate Governing Board
A	1820	No	16,948	846	Yes
B	1868	Yes	22,231	1677	Yes
C	1868	Yes	7,617	804	No
D	1847	No	7,213	597	No
E	1865	No	6,779	498	No
F	1839	Yes	9,080	603	Yes
G	1869	Yes	7,068	529	Yes
H	1891	Yes	8,151	616	Yes
I	1890	No	9,389	467	Yes

The method of determining the operating budget varied in detail at each university, but in general the

¹ Raymond Walters, "Statistics of Attendance in American Universities and Colleges, 1952," School and Society, December 20, 1952, pp. 285-398.

procedure was about the same at each institution. Department heads and deans made requests for funds to an all-university committee, which with the head of the institution had power to approve, disapprove or adjust the departmental budgets.

Universities A, B, D, E, H, and I have committees which allocate office, classroom and laboratory space, while C, F, and G leave the allocation of space to an administrative officer.

The procedure for obtaining minor building alterations such as darkening classrooms, and installing electrical outlets, was practically the same at each institution. These installations are made by physical plant personnel, when authorized by the superintendent of the physical plant. Permanent installations were charged against physical plant funds while semi-permanent or temporary installations were charged to the department making the request.

A new course may be added to the curriculum at these universities only after approval by a curriculum committee or the university senate or both. Universities A, C, D, E, F, G, and H have committees which approve or disapprove courses that have been submitted by department heads and deans. Universities B and I leave final authority for course approval to the university senate. However, in both cases a curriculum committee recommends approval of courses submitted to the senate.

Committee approval of new courses has been a recent change at University A. Prior to this change courses were added to the curriculum when approved by the dean of the school concerned. It is significant that this university offers more courses in the audio-visual field than any other included in this study.

Funds for research are controlled by a committee at Universities A and B, a research council at F and G, a research foundation at H, and a research institute at University I. University D leaves the allocation of research funds to the executive academic dean, the president and board of education. At Universities C and E research funds are allocated by the graduate dean, division heads and department heads with the approval of the president and sometimes a special committee.

Characteristics of the Campus Audio-Visual Programs

The preceding discussion of the universities shows that while they are alike in many respects, they also differ in many ways. This is even more noticeable in the audio-visual programs of these universities. These variations become more apparent as the different phases of these programs are studied. While each audio-visual program differs from the others, each one has its strengths and its weaknesses.

There are few instances where it can be said that this way is the right way or that way is the wrong way. It is in the light of existing circumstances at each institution that the various audio-visual practices must be examined in order to determine their effectiveness in the total audio-visual program.

Development

Four universities in this study, A, C, D, and E were among the first in the United States to establish an audio-visual program. Audio-visual programs have existed at these universities for about forty years. University I has had an audio-visual program for about thirty years, B for about twenty years, F and G for about fifteen years, and H about ten years.

The audio-visual programs at all these universities began and have remained as a part of the extension program. Each reported that audio-visual services to the campus had existed from the beginning, but only Universities C, D, and H gave this as a major reason for starting audio-visual programs. In all other universities the off-campus rental of materials was the primary reason for starting these programs.

While the organizational patterns for these programs may have been influenced by other programs in existence at the time, only one (University B) was patterned

after another program. No university reported using experienced personnel from another university to aid in establishing its audio-visual program.

While all these universities offer audio-visual services to the campus, only A and E have established a campus audio-visual center, with a separate staff and budget for these services. University E is alone in maintaining a library for campus use in addition to a rental library. Several teaching departments own films at University B which are kept in the audio-visual department but are not considered to constitute a campus audio-visual library.

Campus requests for audio-visual materials from the rental libraries were not given preference over any other request.

All nine universities have film rental libraries, from which materials are obtained for campus use. These libraries range from about 2000 titles at F to 6000 at B, with an average of about two prints per title. While these libraries contain some films for all grade levels, approximately ninety per cent are primarily for elementary and secondary school use. As explained in Chapter I, rental libraries are largely self-supporting; therefore, it is necessary from a business point of view to stock the library with films which will have the greatest rental demands.

Table 2

Services Provided at Each University
by the Audio-Visual Department

Services Provided	Universities
Consultative	A, B, C, D, E, F, G, H, I
Audio-Visual Equipment	A, B, C, D, E, F, G, H, I
Audio-Visual Materials	A, B, C, D, E, F*, G, H, I
Operators	A, C, D, E, F*, G, H, I
Preview	A, B, C, D, E, F, G, H, I
Graphic Arts	A, B*, D
Photographic (still)	A, D, E, H
Photographic (motion)	A, D, H*
Recording (tape)	A, B*, D, E*, G*, H*, I*
Recording (disc)	A, D
Equipment Repair	D, G*, H*
Special Service for Students	A**, D**, H**

* Limited in facilities available

** Education students only

It is clear that without a knowledge of the content and grade level of the films in these libraries size would mean very little. It should be noted, however, that since these nine libraries are among the largest in the United

States, they are extremely valuable sources of materials for campus use. This is particularly true of Universities A and B in that they have the two largest educational film libraries in the United States.

All the universities reported a noticeable increase in the use of audio-visual aids after World War II; however, A, B, D, E, H, and I reported the greatest growth in campus use during the last three years.

There was general agreement among the directors of these audio-visual programs that the use of audio-visual aids on the campuses would continue to increase in the foreseeable future provided the audio-visual facilities would permit this growth.

Organization and Administration

An examination of the organizational patterns of the audio-visual programs at these nine universities shows the influence of the extension philosophy in the original planning of these programs. With the exception of A and D the service to the campus appears to have been "tacked on" rather than integrated into the total program.

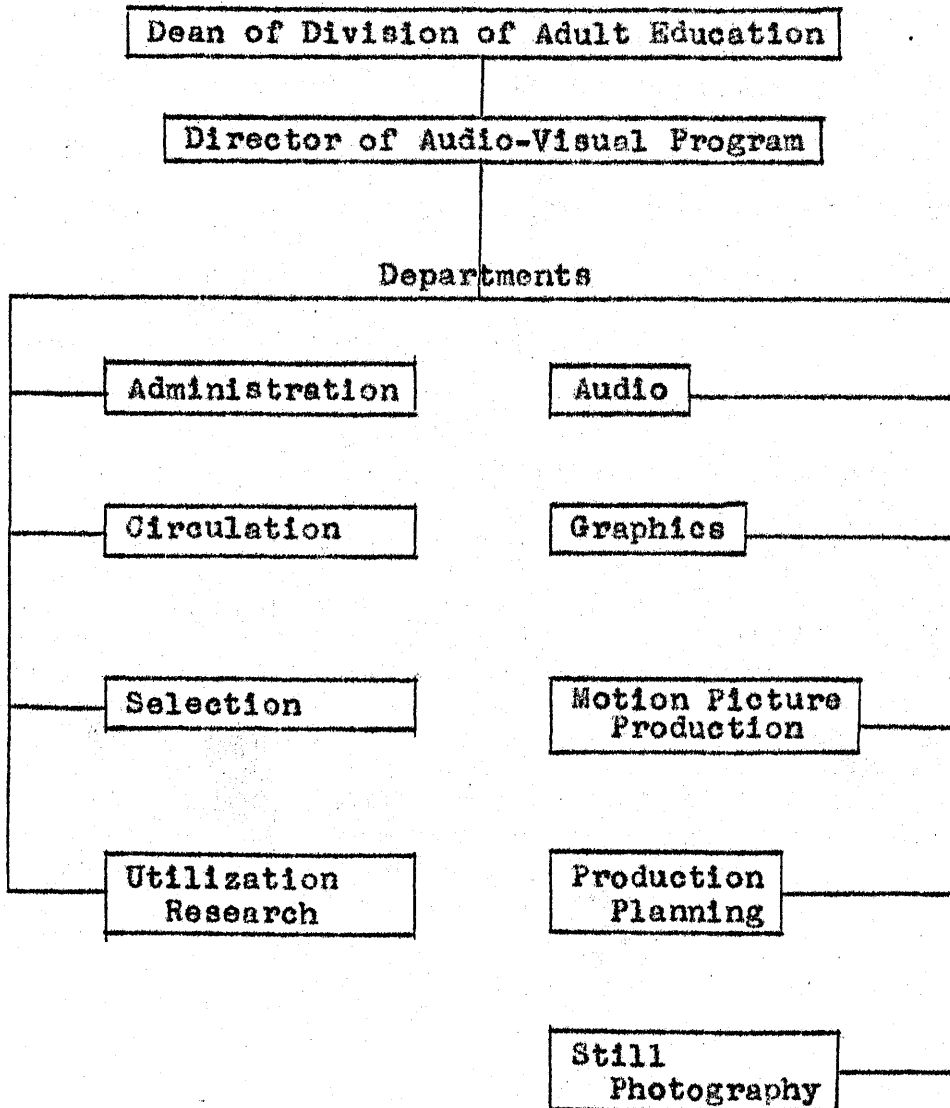
Further evidence that these audio-visual programs were not originally planned to take care of the campus needs is found at B, C, F, G, and I where significant aspects of the campus audio-visual facilities are not under the direction of the head of the audio-visual program but

are attached to other organizational units on the campus.

That most of these campus audio-visual programs came about without a great deal of planning and grew like "Topsy" is shown in the following organizational charts.

Figure 1

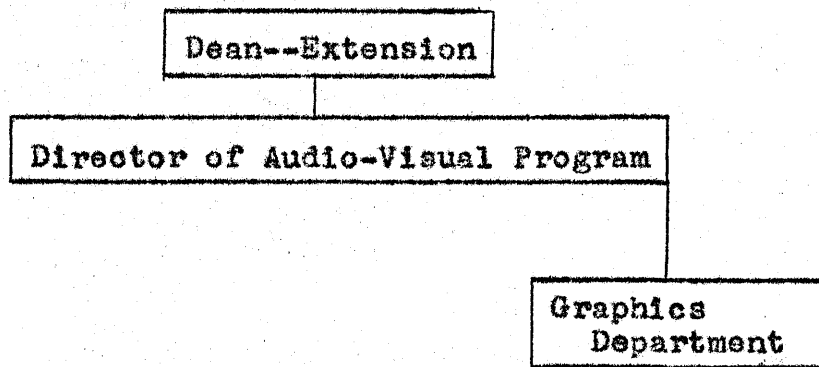
Organizational Chart for the Audio-Visual Department
at University A



University A--The head of the circulation department is in charge of distribution of materials to both campus and off-campus users. The campus service unit is a part of the circulation department and has a separate staff to provide audio-visual aids for campus use. All departments serve campus as well as off-campus needs.

Figure 2

Organizational Chart for the Audio-Visual Department
at University B

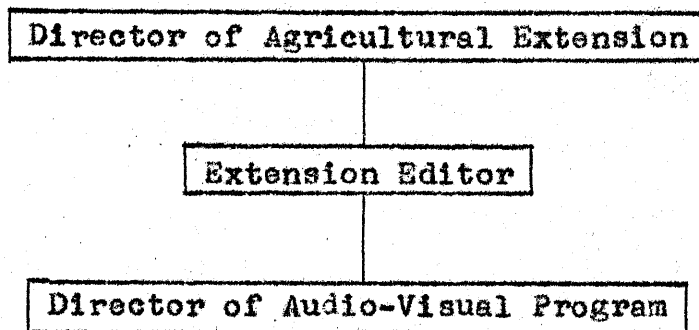


University B--The director of the audio-visual program is directly responsible for both off-campus and campus use of audio-visual aids.

A photographic department which produces both still and motion pictures is not a part of the audio-visual program but is attached to the communications materials center. The graphics department is the only part of this organization for campus use exclusively. There are no other staff members designated for campus service entirely.

Figure 3

Organizational Chart for the Audio-Visual Department
at University C

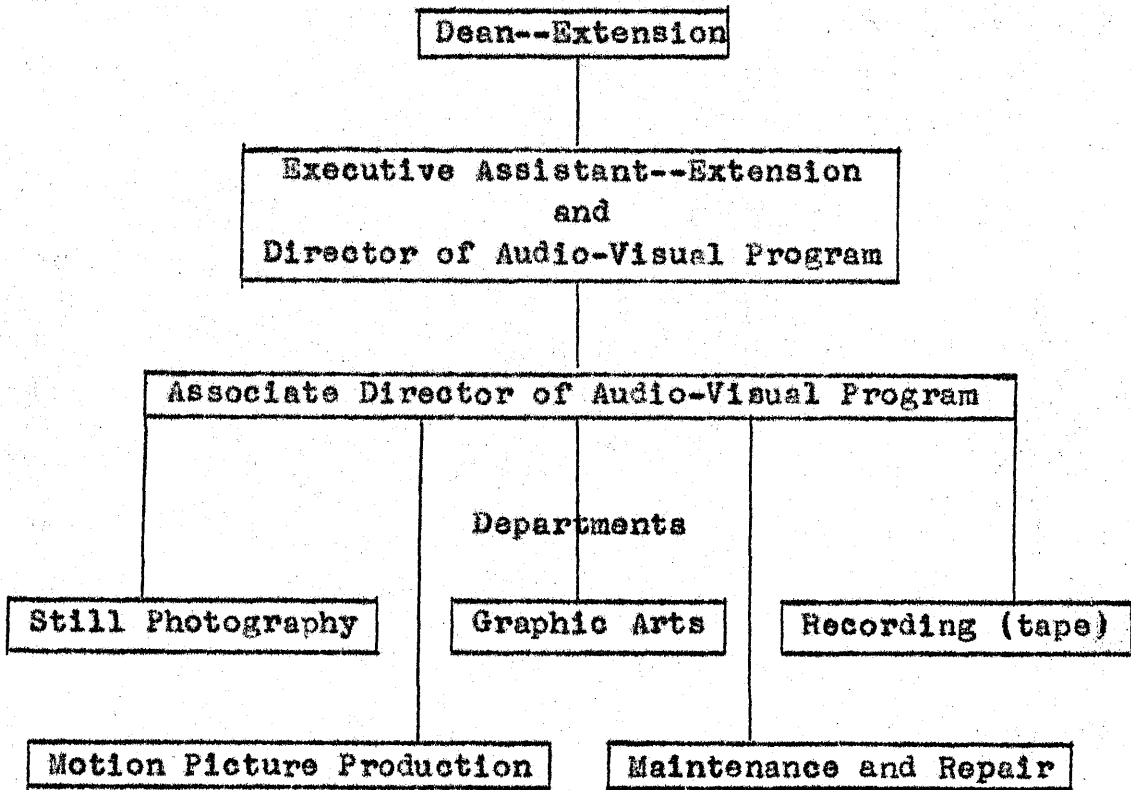


University C--The director of the audio-visual program is directly responsible for both off-campus and campus use of audio-visual aids. Still and motion picture production units on this campus are not a part of the audio-visual program.

There are no staff members who work exclusively on a campus audio-visual program.

Figure 4

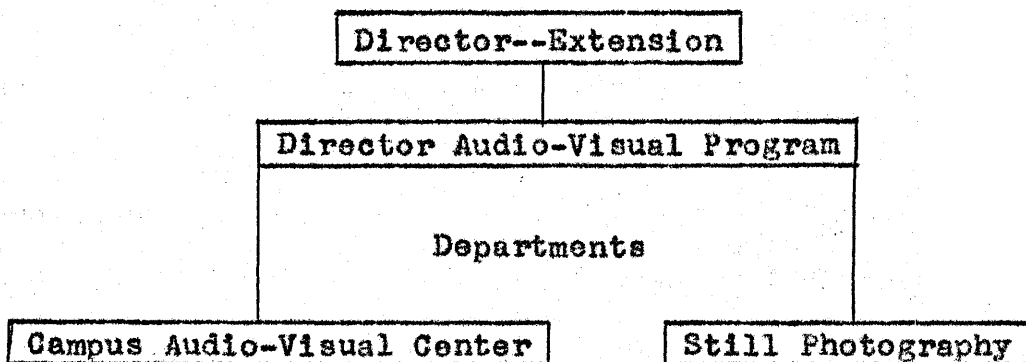
Organizational Chart for the Audio-Visual Department
at University D



University D--The associate director is directly responsible for all campus and off-campus services except those services which are under the departments shown in the organizational chart.

Figure 5

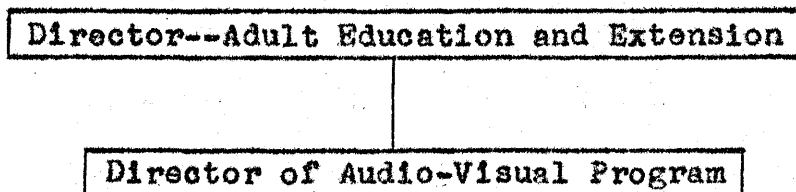
Organizational Chart for the Audio-Visual Department
at University E



University E--All audio-visual services for the campus, except still photography, are under the campus audio-visual center. The director of the audio-visual program is directly responsible for all off-campus audio-visual services.

Figure 6

Organizational Chart for the Audio-Visual Department
at University F

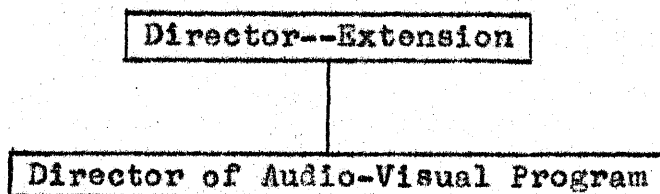


University F--The director of the audio-visual program is directly responsible for all off-campus and campus audio-visual services within this department. The

graphic arts and still photography departments on this campus are under the direction of the Dean of the College of Agriculture and are not connected administratively with the audio-visual program.

Figure 7

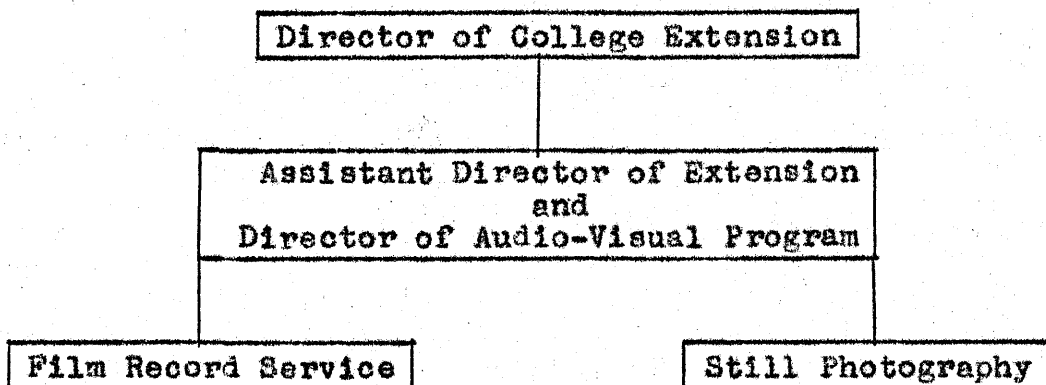
Organizational Chart for the Audio-Visual Department
at University G



University G--The director of the audio-visual program is directly responsible for all campus and off-campus services that come under this department. The still photography, motion picture production, and graphic arts departments on this campus have no connection administratively with the audio-visual program.

Figure 8

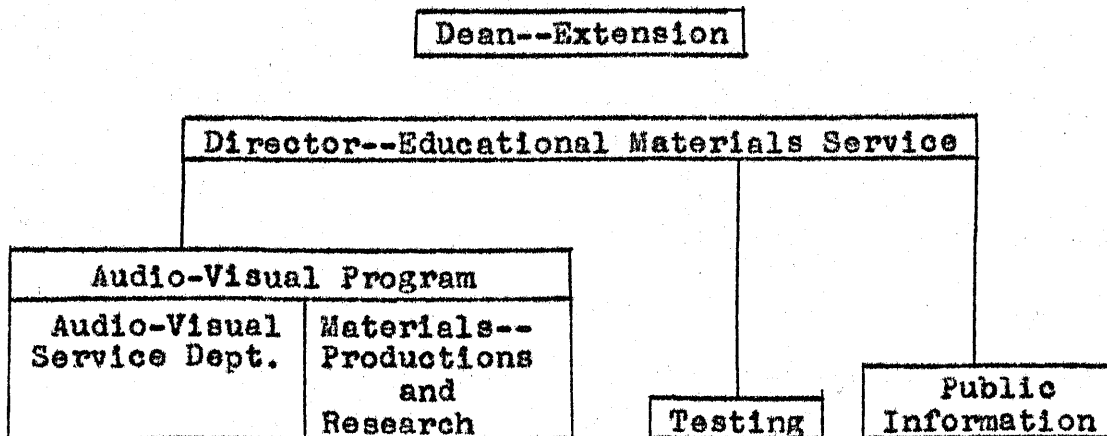
Organizational Chart for the Audio-Visual Department
at University H



University H--All campus and off-campus services, except photography, are under the film record service department. Some motion picture production is done but no separate section has been established to carry on this work.

Figure 9

Organizational Chart for the Audio-Visual Department
at University I



University I--All campus and off-campus audio-visual services are under the audio-visual service department, except graphic arts, curriculum materials and research which make up another department in the audio-visual program. It has been recently organized and is largely in the planning stage at present. A photography department on this campus is directly under the dean of extension and is not connected administratively with the audio-visual department.

General Comments--Audio-visual committees that function as policy making or advisory bodies were found in only two universities, C and I, with H reporting that such a committee had existed but was now inactive. At I the committee met about twice each year and at C about once each month.

In each case the president appointed the members largely on the basis of "interest in audio-visual program."

Universities A and D gave the Dean of the School of Education as the person who had a major influence in the growth of the audio-visual program. The other universities did not specify any individual out of their departments as greatly influencing the audio-visual program.

In no case was there a connection administratively between the audio-visual program and the library for books nor was any audio-visual director in favor of such a connection.

There was no administrative connection between the school of education and the audio-visual departments; however, there was a close working relationship in each case. Seven of the nine audio-visual directors have taught or are now teaching classes in the school of education.

Six of the nine audio-visual directors thought that the audio-visual program should be attached to a larger administrative unit, two thought it should be a unit by itself, and one thought that the campus service should be a separate unit with the off-campus service remaining in extension. Of the six who favored the larger unit attachment, four preferred extension while two preferred the school of education.

Finance

There was very little variation in the procedures followed at these universities to establish the audio-visual operating budget, nor was this budget established in any way different to any other departmental budget. There was, however, considerable variation in the types of budgets for audio-visual purposes. Two main types were used at all universities except F. They were: (1) a fixed budget determined by budgetary officials of the university, and (2) a revolving fund budget where expenditures were governed by income. There was no budget

specifically established for audio-visual purposes at University F. Funds from the general extension budget were used as directed by the director of extension.

Universities A, C, D, H and I used the fixed type budget while B, E, and G used the revolving fund budget. In general the difference in these two methods of operation is that in the revolving fund budget, income from rental and sale of equipment and materials is deposited in a special account which may be drawn upon without approval of a budgetary body, while in the fixed budget all income is deposited in a general university account and approval for spending is required. However, even though in principle these two budgets were used, variations in the operation of these budgets were common. For instance, Universities A, D, H, and I reported that if income exceeded the original estimate, adjustments in the budget were nearly automatic. At University E the part of the audio-visual budget for the campus audio-visual center was set by university budgetary officials while the part designated for off-campus services was on the revolving fund principle, with entirely separate accounts used for the services indicated.

The author was not given permission to publish specific budget figures for these audio-visual programs; however, certain general statements can be made. The median budget for 1952-53 was about \$50,000, average budget

about \$116,000, with a total for all budgets about \$1,050,000. The budgets ranged from \$15,000 to \$450,000. It should be noted that these figures are for the budgets of the organized audio-visual programs for both off-campus and on-campus services, but do not include the budgets for the various production units that were not attached to these programs.

Because of the differences in organization and administration of the audio-visual programs² it would be most difficult to say what part of these budgets were allocated for campus use. Only in the case of University E could a reliable figure be determined. This amount, not including still photography which is very largely self-supported, is about \$25,000. At this university it is a policy for the total audio-visual program to be subsidized by the amount spent on campus, while the off-campus service is to be very largely self-supported.

While all these audio-visual programs were subsidized by university funds, the amount of these subsidies did not vary directly with the services performed. Subsidies ranged from less than \$5,000 to \$125,000, and only in the case of E was any subsidy earmarked for campus service. Universities A, E, G, and I do not make a charge

2 See pp. 34 to 41.

to departments for equipment, materials or operators used in regularly scheduled classes. C, D, and F charge for the operators' time only, while B charges for materials and H charges for all services to classes. At B, projection equipment and operators are furnished by the physical plant department. All universities except E do, however, charge departments for materials that must be obtained on a rental basis from some other library. No university had an arrangement or agreement with any other university to exchange materials for campus use.

Only Universities A and F reported that the policy regarding charges made by the audio-visual department was approved by officials outside the department. At University E the policy prescribing that no charges be made for audio-visual services to credit classes is a university policy.

No limits were set on the amount of audio-visual service that could be requested by departments at these universities and all instructors were encouraged to use the services available.

No endowments or grants had been given to any of these universities for use in the campus audio-visual program.

Universities A, B, E, F, H, and I reported that funds available during 1952-53 for the campus audio-visual program were not adequate, while C, D, and G reported these funds as adequate for the services requested.

At University A funds for campus audio-visual services for 1953-54 were decreased about 10 per cent, at C funds were decreased about 5 per cent, and at F the decrease was so great that practically no funds are available for these services. Universities B, D, E, H, and I reported increases of 20 per cent, 5 per cent, 22 per cent, 5 per cent, and 5 percent, respectively, in funds for 1953-54 for campus audio-visual services. University G reported no change in funds for 1953-54.

Staff

Tables 3, 4, 5, and 6 show some of the variations that exist in the staffs of the various audio-visual programs. Many other variations exist that cannot be put in tabular form.

The types of work performed by these employees before entering the audio-visual department proved to be too voluminous to include in this report; however, it was evident that more than seventy-five per cent of the administrative personnel of these programs had previously been public school teachers or administrators. Technical and clerical assistants were recruited from many different fields but a significant number had received some training in military service. The most noticeable thing regarding the staff was that very few came to the jobs they now hold with specific training for that job. In-service training

has been the rule rather than the exception. This applied to the two universities (B and E) which had a civil service system in operation as well as those without such a system.

Table 3

Number of Employees in the Universities'
Audio-Visual Departments

University	Number of Full-Time Employees	Number of Part-Time Employees (15 hrs. per wk.)
A	66	50
B	14	50
C	7	10
D	35	24
E	10	25
F	5	4
G	8	11
H	7	25
I	8	9

The most rapid turnover was among the clerical personnel, with technical personnel second. The length of service for the directors of the audio-visual programs ranged from 1 to 40 years, with a median of 7 years, and an average of about 15 years.

Table 4

Salaries of Audio-Visual Department Employees

Univer- sity	Number of Employees in Salary Range:								TOTAL
	Under \$3000	3000 to 3500	3500 to 4000	4000 to 4500	4500 to 5000	5000 to 5500	5500 to 6000	Over 6000	
A	22	7	8	10	7	3	0	9**	66
B	10	1	1	1				1**	14
C	5	1			1				7
D	22	4		5			1	3	35
E	6	1			1			1	9
F	4					1**			5
G	7						1**		8
H	2			3	1			1	7
I*	5	2		1					8

* Salaries of the Director of Educational Materials Service and Head of Production and Research not included.

** Part of these salaries paid by School of Education for time spent teaching audio-visual classes.

All full-time employees were hired on a 12 months basis. Eight of the nine universities reported that qualified employees were very hard to find while one university (A) reported that qualified employees were usually available to fill vacancies. These eight universities gave

the lack of training facilities available as the reason for the scarcity of qualified employees. University A gave credit to its own training program for providing qualified applicants for positions in the audio-visual department. With very few exceptions the employees of University A have received their training as students at this university.

Table 5

College Degrees Held by Full-Time Staff Members

University	Number of Employees With Degrees		
	Bachelors	Masters	Doctors
A	8	22	4
B	2	2	
C	1		
D	4		
E	2	2	
F		1	
G		1	
H	1	4	
I*	1	3	

* Director of Educational Materials Service has a master's degree and Head of Production and Research has a doctor's degree. Neither is included in above table.

No university reported that its audio-visual program was adequately staffed. Universities I and E expressed a desire for personnel to establish graphic arts departments. The others did not express a desire to add specific departments but felt that additional personnel was needed to meet the increasing demands for service.

Table 6

Hourly Wage for Part-Time Employees (Students)

University	Hourly Pay Range
A	.75 to 1.50
B	.85 to 1.50
C	.70 to .80
D	.85 to 1.00
E	.60 to .80
F	.75 to all
G	.60 to .75
H	.40 to .60
I	.65 to 1.00

When asked to list the qualifications that they thought a person in charge of a campus audio-visual program should have, at least five of the nine audio-visual directors

suggested the following: (1) broad academic background, (2) teaching experience, (3) at least a master's, preferably a doctor's degree, and (4) a technical knowledge of the audio-visual field.

Selection of Materials

The final decision on audio-visual materials to be purchased for use in the classes at these nine universities has been the prerogative of the directors of the audio-visual programs or their representatives on the audio-visual staff. They believed that the final decision was their responsibility. However, the advice of departments and instructors was sought and followed where possible to do so. Only University D made a practice of giving students a chance to pass judgement on materials to be purchased and there it was limited to students in education classes.

Even though student opinion was not used in the selection of materials to any great extent, five (C, D, E, H, and I) of the nine universities believed that students should have a chance to preview these materials and voice their opinions regarding them. No workable plan was suggested for getting student opinion on audio-visual materials.

Campus-wide committees for selection of materials were not used, although University A holds regular weekly previews to which instructors and students are invited.

Universities A, D, H, and I reported that students in some classes in the school of education were given a chance to preview materials but only at D were these evaluations considered when purchases were made.

All universities used some type of evaluation form in the selections of audio-visual materials with the Educational Film Library Association (EFLA) form as the most popular.

All audio-visual directors believed that the method used to select films at their university was satisfactory.

The directors of these audio-visual programs believed that books and audio-visual materials were so different that the methods used to select library books would not be satisfactory for the selection of audio-visual materials. Cost of the audio-visual materials and the need for the opinion of the audio-visual specialist were the two reasons given most frequently.

University A is the only university which has a department in the audio-visual organization for the selection of materials. The head of that department who has specialized in the selection of audio-visual materials made the following suggestions for the improvement of methods of selecting audio-visual materials: (1) selection of audio-visual materials should be based on the results of

systematic research, and (2) selection of audio-visual materials should be a continuing process.

Production of Materials

A and D are the only universities included in this study that have complete production facilities within the audio-visual organization. University B has a graphics department, and E and I have photography departments in the audio-visual organization. B, C, F, G, and H have production departments that are not attached to the audio-visual organization.

Even though these departments are all subsidized to some extent by the universities, they are considered to be largely self-supported. Charges for materials produced are made to the department or individuals making the requests.

Only at University D were any materials produced free of charge for classroom use. Universities A, B, C, D, G, and I produce 16 mm. sound motion pictures, with production at B, G, and I almost entirely limited to films for the athletic department. While the motion picture production units at A, C, and D have produced several films usable at the university level, the controlling factor in production is the sale of prints. The cost of production of motion pictures is so great that it practically prohibits the making of films solely for classroom use.

None of these universities produced films for commercial organizations nor did any of the universities without film production units contract with commercial film producing companies to produce films except those used in the public relations program. University A has produced some films for its state agencies on a contractual basis.

B was the only audio-visual department without a motion picture production unit that planned to establish one in the near future.

Universities A, B, C, D, G, H, and I believed that the production of motion pictures should be a function of the audio-visual program. F did not state an opinion and E preferred to leave this function to the commercial film producing companies.

None of these audio-visual programs had any connection administratively with the universities radio or television program.

While all universities had radio stations, only C and F had television stations. Both of these stations operated on commercial channels. University B has made considerable progress toward establishing a television station which will operate on an educational channel. The administration of this station is in the communications materials center.

Utilization of Materials

Meaningful data regarding the utilization of audio-visual materials at these universities were the most difficult to obtain. This does not imply that the directors were unwilling to supply data but rather that measures and standards have not been developed whereby those data would be usable. Likewise methods of reporting data regarding the utilization of audio-visual materials have not been standardized. At one university the amount of audio-visual materials used was based on the number of films that had been checked out of the library for campus use, but whether a film had been used in more than one class was not known. Another university preferred to report the number of different requests from instructors regardless of the type and amount of materials or equipment requested. Another reported the number of "uses" on the campus. A use was any audio-visual aid used in a class during one class period.

That measures and methods of reporting the utilization of audio-visual materials should be standardized appears to be desirable. However, even if this were done, little would be accomplished because like other aids to instruction there are few, if any, standards by which to determine adequate use, either in quality or amount.

The data presented here are submitted in the light of the above discussion and are not meant to be conclusive.

Each audio-visual director was asked to name three departments at his university that were in his estimation making the most effective use of audio-visual aids, three departments that used the most, and three departments that used the fewest audio-visual materials. For the most effective use, Education was named by five directors, Home Economics by four, Agriculture by three, and R.O.T.C., Geography, Medicine, and Psychology by two. The departments using the most were about the same as those making the most effective use of audio-visual aids. Mathematics, Physics, and English were listed by five directors as using the fewest audio-visual aids, with the language, law, and history departments listed by two directors.

Lack of suitable materials was the main reason given by all nine directors for the difference in the amount of audio-visual materials used by the various departments.

All universities supplied instructors with booklets or pamphlets describing the proper procedure for obtaining audio-visual materials and lists or catalogs describing the materials available.

Preview facilities were available at each university for use by instructors, but only to a very limited extent for students.

All nine directors said that if it were possible for them to do so, they would permit individual students to view films of their own choosing. No evaluation devices or forms were used to determine the effectiveness of the audio-visual materials in the instructional programs.

Campus-wide film programs are not under the direction of the audio-visual director at any of these universities. Films shown on these programs are usually 35 mm., and are selected by a campus-wide committee or representatives from the Student Union Activities Association.

Audio-Visual Equipment

There are two broad classifications of audio-visual equipment used in this discussion. They are: (1) equipment that facilitates the use of audio-visual materials in the classroom, and (2) equipment that is used for the production of audio-visual materials. Table 7 lists the equipment that is most commonly used in the classroom, and is the equipment with which this study is most directly concerned.

Table 7
Audio-Visual Equipment

Audio-Visual Equipment	Universities								
	A*	B-	C*	D*	E*	F-	G*	H*	I*
16 MM. Sound Projectors	12	16**	10	48	21	14	32	22	38
16 MM. Silent Projectors	0	5	3	16	3	0	2	1	10
35 MM. Slide Projectors	2	2	20	30	8	2	17	2	7
Combination Slide and Filmstrip	6	7	5	25	6	3	10	10	16
3½ x 4 Slide Projector	4	4	5	50	5	1	36	2	8
Tape Recorders	0	6	1	15	8	2	31	6	9
Disc Recorders	0	0	0	3	1	0	4	2	1
Record Players	2	5	2	20	5	2	25	5	2
Opaque Projectors	5	4	17	14	2	1	14	3	12
Overhead Transparency Projectors	1	1	2	13	2	0	2	1	1
Overhead Projectors	2	3	0	6	2	1	3	2	3

* Centralized system of equipment distribution.

- Decentralized system of equipment distribution.

** About 40 additional 16 mm. sound projectors belong to the physical plant department.

At Universities A, C, D, E, G, H, and I most of the audio-visual equipment is owned or in the custody of the audio-visual department. It is distributed from the audio-visual department to the various university classes. This is referred to as a centralized system of equipment distribution.

At Universities B and F a decentralized system of equipment distribution is used. Any department may purchase audio-visual equipment and have custody of it.

Centralization or decentralization is not complete at any of these universities; however at D, G, and I university policy prescribes that all audio-visual equipment regularly used in the classroom be in the custody of the audio-visual director. Department owned tape recorders and record players were the most noticeable exceptions to this policy.

A significant amount of audio-visual equipment still remains in the various departments at Universities A, C, E, and H.

At University B motion picture projectors and operators are supplied by the physical plant. As shown in Table 7, the audio-visual department at B owns audio-visual equipment, even though it has no campus projection service. This equipment is available to departments on a rental basis only.

At University F the departments that do not own audio-visual equipment may rent it from the audio-visual department. Operators are supplied by the audio-visual department if requested.

The Universities (A, C, D, E, G, H, and I) that had a centralized system of equipment control reported that they were satisfied with this arrangement, while B and F preferred to change to a centralized system.

A complete equipment repair service with trained personnel is maintained at only one audio-visual department (D), but G, H, and I do all repair service except major overhauls. At Universities A and B equipment is repaired in the physical plant's electronic department. Universities C, E, and F do only minor equipment repairs and send equipment to commercial shops for other repair service.

All universities reported that equipment was checked at least once each semester. A, B, H, and I try to maintain a weekly "check and clean" schedule for all audio-visual equipment.

The equipment owned by the audio-visual departments at Universities A, B, D, E, G, H, and I was not adequate to meet the demands, and the number of requests for equipment is increasing. Sound projectors, tape recorders, and overhead transparency projectors are most in demand.

In-Service Training Programs

An organized class for in-service training of instructors is held once each year at University D. Eight sessions of 90 minutes each on the operation of equipment and utilization of materials are available to instructors. Attendance is voluntary.

A short audio-visual seminar of one or two class periods is conducted each semester at University H. Three class periods of instruction on the operation of equipment are available to instructors at University C each quarter.

No classes or seminars were available to instructors at the other universities; however, individual instruction on the operation of equipment was available on request.

Audio-visual directors are occasionally invited to departmental faculty meetings to talk about the audio-visual program, but these invitations have been "few and far between."

The in-service training that has been done at these universities has been without official university policy or regulation. Deans and department heads in general were in favor of the idea, but have done very little to assist teachers in the use of audio-visual materials.

At all universities, except F, instructors are supplied with handbooks, pamphlets or other materials

explaining the various phases of the audio-visual program and instructors are urged to seek individual assistance when needed.

Physical Facilities

The need for more space was expressed by eight of the nine audio-visual directors. Not only was there an urgent need for more space but a better arrangement of the physical facilities was needed for efficient operation of the present programs. Only at University H would the physical facilities permit a significant expansion of the audio-visual services. No additional space had been allotted to any of these audio-visual programs except at University H where more office space will soon be available. Plans (which are still in the blue print stage) have been approved at University D for a new unit in the communications building which will house the audio-visual department.

The audio-visual departments at all universities except A and G were considered to be well located in relation to the other buildings on the campus. The department at A is housed in temporary World War II buildings at the extreme northeast edge of the campus and considerable distance from most of the classroom buildings. The department at G is located on the "city campus" which is about two miles from the "ag campus" which it also serves.

The number of buildings on these campuses that are serviced by the audio-visual department ranges from about fifteen at E to forty-five at C. The total number of classrooms at these universities varies from approximately 140 at E to over 800 at B. Figures were not available on the number of classes that meet each day at these universities, except at E, where about 900 classes meet daily, Monday through Friday.

Table 8

Physical Facilities Available for Projection of Films

University	Classrooms Equipped For Film Projection	Special Projection Rooms Available	Number of Preview Rooms Available
A	75%	0	2
B	60%	3	1
C	20%	2	1
D	15%	3	4
E	25%	1	0
F	10%	1	0
G	10%	0	2
H	*10%	14	4
I	15%	1	3

* One room in each building is equipped for the projection of films and classes are moved to these rooms for film showings.

Table 9

Film Projections--Where and By Whom

University	Percentage of Projection in Special Projection Rooms	Percentage of Projection by Audio-Visual Department Operators
A	0	90
B	5	75
C	5	75
D	5 to 10	25
E	20 to 25	50
F	5	20
G	0	50
H	85	40
I	Less than 5	5

Audio-visual equipment and materials are delivered to the classrooms at all universities by personnel from the audio-visual department except at B and F where physical plant personnel make deliveries. Materials and equipment are delivered on request except at A and F where two deliveries per day are made, and at I where all deliveries are from 3 P.M. to 5 P.M. daily.

Only at University D are facilities available for instructors to prepare graphic materials. Assistance is

provided by the graphics department staff and charges are made for materials used.

Research

Research in the audio-visual field at the University level has been practically non-existent at these universities.

Several research projects having to do with audio-visual aids at the elementary and secondary levels have been completed at Universities A, D, E, and G. In each case these projects have been done in cooperation with the schools of education at these universities.

At Universities A and D audio-visual staff members have directed or assisted several doctoral studies which have been done by School of Education students. Eleven such studies are now under way at University A, two at University I, and one at University E.

Assistance in providing audio-visual equipment and materials for studies at the master's and doctor's levels has been a common practice at all universities.

Staff members who will spend a major portion of their time on research have been recently added to the audio-visual staffs at Universities A and I.

Funds to conduct research have not been made available to the audio-visual departments at these universities, however some research has been financed by the audio-visual departments.

Future Plans

This chapter thus far has discussed the audio-visual facilities available at the universities included in this study. This unit will discuss the plans of the audio-visual directors for expansion of the campus audio-visual programs. Whether or not these plans become realities will to a considerable extent determine the growth in the use of audio-visual aids at these universities.

Continued expansion of these campus audio-visual programs will undoubtedly call for changes in the organization and administration of these centers; however, there were no immediate plans for changing either the organizational or administrative arrangements now existing.

A closer working relationship with the schools of education was expressed by all audio-visual directors as being desirable. Joint audio-visual and school of education staff appointments should be increased. There are now 14 such appointments at University A and plans are for more to be added as the program expands.

Adding graduate assistants on a part-time basis to the audio-visual staffs was in the plans of four audio-visual directors. University A now has about 40 graduate assistants and research workers on a part-time basis on its audio-visual staff. Plans are for more to be added as needed.

In-service training programs for instructors was mentioned by eight of the nine audio-visual directors as part of their plans for getting more and better utilization of audio-visual materials.

More and better audio-visual materials are needed, especially in graphic arts. Universities E, H, and I have plans for adding graphic arts departments to their audio-visual programs. Universities A, B, and D hope to expand their graphic arts departments so that instructors may use these facilities to produce materials for classroom use.

A motion picture production unit is in the plans for University H.

Complete centralization of equipment is not considered the best procedure by five of the nine directors. While custody of equipment should remain in the audio-visual department, sufficient amounts of equipment should be available for assignment to teaching departments as needed.

More financial support from appropriated funds is needed, and the desire was expressed by three audio-visual directors to discontinue the departmental charge for use of equipment and materials.

More and better physical facilities was a need expressed by all audio-visual directors. Only at

Universities D and H was there an audio-visual laboratory where training could be conducted. All audio-visual directors would have a training aids laboratory if space were available.

More preview rooms and more classrooms equipped to project audio-visual materials are needed at all universities.

While more space was at or near the top of every list of needs, only at University D did greatly improved facilities seem probable. There plans are well under way to integrate the audio-visual department, radio, television and journalism into a communications center for which a new building will be constructed.

Summary of Data

The whole is the sum of all the parts yet a distorted picture may often be obtained by studying the parts without relating them to the whole. The foregoing discussion has been about the various parts of the audio-visual programs.

The following is an attempt to summarize the important information obtained through observation and interviews at each university.

University A

From the standpoint of enrollment University A is second largest of the nine universities included in this study. It is the oldest university included. The audio-visual program began in 1914 as a part of the extension program. It was not until in 1940 that any significant growth began. At that time a new director was appointed and the audio-visual program was integrated with the School of Education program.

At present the audio-visual organization is the most complex of any studied. It has nine separate departments which include administration, circulation, selection, utilization and research, audio, graphics, motion pictures, production planning, and still photography.

The budget for the audio-visual department at this university was approximately \$450,000 for 1952-53. For this budget \$325,000 was obtained from sale and rental of materials and \$125,000 was appropriated from general university funds.

Sixty-six people are employed full-time and 50 part-time. Of these 66 full-time employees, 4 have doctor's, 22 have master's, and 8 have bachelor's degrees. The part-time employees are largely graduate assistants and research workers, working toward advanced degrees with a major or minor in the audio-visual field. Seventeen of

the full-time employees have joint appointments of which 14 are with the school of education.

The selection department has a staff of five full-time employees and seven graduate assistants who accession, describe, catalog, and arrange for previewing of all audio-visual materials for campus and off-campus use. Regular weekly previews of new materials are arranged for audio-visual staff, instructors, and students.

At present the film library has about 4600 titles and more than 14,000 prints. More than 100,000 reels were distributed during 1952-53, with an income of approximately \$175,000.

Facilities are available for the production of films, filmstrips, slides, recordings and graphic materials. While the primary function of these departments is the production of materials another very important function is served in providing training laboratories for students, thus combining the theoretical with the practical.

These production departments are adequately equipped and are staffed with capable personnel.

During 1952-53 the campus center furnished operators and equipment for approximately 2500 appointments and equipment only for 500 appointments. During the same period 4800 film titles and 350 bookings of other types of audio-visual materials were provided for campus use.

The photographic services to the campus included the making of 6,454 identification pictures, 2,467 lantern slides, 18,827 paper prints involving 1,876 camera appointments, 12,908 frames of filmstrips, 4,959 application pictures, 7,227 negatives, and 600 photomicrography negatives.

Audio services to university departments, faculty, and students included 1,081 recordings, 197 original recordings, 271 dubbings, and 118 reels of tape.

The graphic arts service included a variety of work requiring art and design, such as, three-dimensional displays, illustrations, layouts, and cover designs for publications.

Less equipment was available for campus use from the audio-visual center at this university than any other except F. If enrollment or size of teaching staff were used as a basis for comparing the amount of equipment at these universities, then this university would rank well below any other.

Equipment, operators and audio-visual materials from the library are provided free of charge for campus classes.

The audio-visual department with the exception of the audio section is housed in four World War II barracks type buildings, which are poorly located with respect to the

classroom buildings on the campus. The audio section is in the music building.

About 75 per cent of the classrooms on the campus are equipped for the projection of audio-visual materials, which is a greater per cent than at any other university in the study.

All projection for classes is done in the regular classrooms. Two rooms are provided for previewing audio-visual materials.

No specific in-service training program for instructors has been set up, but in-service training is available on an individual basis as requested. Instructors are provided with catalogs available for their use.

Graduate training and research in the audio-visual area have been emphasized to a greater degree at this university than at any other. During 1952-53 there were 25 doctoral candidates majoring in audio-visual education with 64 doctoral candidates pursuing a minor in this field. Eleven doctoral dissertations dealing with some aspect of mass media of communication were completed during 1952-53.

University B

This university which was established in 1868 is the largest included in the study and second largest in

the United States.³ It is a land grant institution with a College of Agriculture and Mechanic Arts.

The audio-visual department was founded in 1932 and until 1941 was largely a film depository for the public schools. At that time a rental plan was established for the film library to allow for expansion which had not been possible under the cooperative agreement with the public schools. In 1946 a graphics department was added to the audio-visual organization. In 1949 disc recordings were added to the audio-visual materials library. In 1952 tape recording and filmstrip services were started but separate departments were not established for these functions. Between 1932 and 1952 all materials obtained from the audio-visual library for campus use were free of charge. Since 1951, departments have been charged for all materials used.

Projection service is not provided by the audio-visual department. Many departments own projection equipment and those that do not may obtain projection service (equipment and operators) from the physical plant.

About 150 films owned by teaching departments are deposited in the audio-visual department, and may be used campus-wide.

3 Raymond Waters, "Statistics of Attendance in American Universities and Colleges, 1952," School and Society, December 20, 1952, p. 13. Comparisons made on enrollment of full-time students.

The rental library contains more than 6,000 film titles and about 12,000 prints. Estimated income from rentals from this library will exceed a quarter, and may reach a third, of a million dollars in 1953-54.

The budget for this audio-visual program in 1952-53 was approximately \$200,000. All of this was obtained from the off-campus rental of audio-visual materials except about \$14,000. Of this \$14,000, about \$10,000 was paid by other departments to the audio-visual department for the use of materials and \$4000 for the purchase of graphic materials.

Fourteen full-time and 50 part-time employees make up the audio-visual staff. Two of the full-time employees have master's and two have bachelor's degrees. Most of the part-time employees are university students.

The audio-visual director and his staff select the audio-visual materials for purchase. Instructors' opinions are valued but, because of the large number of films purchased, are difficult to obtain.

Production consists largely of graphic materials, disc and tape recordings. The extension division uses about all the graphic materials produced and the tape and disc recordings are largely for off-campus distribution. The photography department at this university is not a part of the audio-visual organization.

The amount of equipment that was available for campus use was not known. A decentralized system of

equipment distribution was followed. A small equipment pool was maintained in the audio-visual department for rental to instructors and others. The physical plant had about 40 sound projectors, which could be obtained with operators for classroom use.

The audio-visual department was housed in the second floor of a building located on the west side of the campus. The total floor space for the audio-visual department was about 7,000 sq. ft.

About 60 per cent of the classrooms on the campus were equipped for film projection. Four special projection rooms were available for class use but only about 5 per cent of the audio-visual materials were shown in these rooms. One preview room was available for faculty and audio-visual staff use.

There was no organized in-service training program for instructors, but individual assistance was available on request.

No research has been done by the audio-visual staff; however, the director has assisted several graduate students with research problems in the audio-visual area.

University C

This institution which is a College of Agriculture and Mechanical Arts was founded in 1858.

The audio-visual department was established in

1914 as a part of the engineering extension service. The primary purpose for organizing an audio-visual department was to furnish materials for engineering extension classes. Since 1914 the audio-visual program has been in and out of engineering extension three times. It is now a part of agricultural extension but serves the entire campus. It began to offer audio-visual services to the campus about 1920.

While the rental library contains materials for all educational levels, agriculture and home economics films for high school and college use predominate. An audio-visual library for campus use exclusively has just been started, and plans are to expand it as rapidly as funds become available.

There are no separate departments in the audio-visual organization. All campus and off-campus services are within the one unit.

The budget for this audio-visual department for 1952-53 was about \$60,000 which was largely obtained from the rental of materials. About \$6,000 of this amount, which is appropriated from general funds, is for campus audio-visual services.

All audio-visual services except operators are furnished free of charge to campus departments.

Seven full-time and ten part-time employees are on the audio-visual staff. One of these full-time

employees has a bachelor's degree. The part-time employees are college students.

The director of the audio-visual department selects materials for purchase with the advice of department heads or members of the teaching staff.

There are no materials produced by the audio-visual department. A well equipped visual aids production unit, not attached to the audio-visual organization, produces still and motion pictures.

At one time motion picture production was established as part of the audio-visual program, but was discontinued because of lack of staff and facilities.

A centralized system of equipment distribution is followed. Only thirteen 16 mm. sound projectors are available on the campus; however, about thirty 2 x 2 slide, and twenty-one opaque projectors are available.

The audio-visual department is housed in the service building which is well located with respect to the other buildings on the campus.

The physical facilities for this audio-visual department were the most desirable of any observed; however, the limited area will not allow for expansion of services.

The organized in-service training program consists of three one-hour periods on the operation of audio-visual equipment available to instructors each quarter. Individual

assistance is available on request.

No research has been done by members of the audio-visual staff.

University D

This university which was founded in 1847 was among the first in the United States to establish an audio-visual program with the primary objective to provide audio-visual aids for campus use. Even though it is a department within the extension division and does provide the usual off-campus services, the campus program has remained a major objective. From its beginning in 1914 to 1922, when it was given the title of Bureau of Visual Instruction, the audio-visual program was almost entirely that of providing equipment and slides for campus use.

The audio-visual organization which has been expanded to include a variety of services reflects the desire to provide audio-visual aids for university classes.

The audio-visual department's budget for 1952-53 was the third largest included in the study. More than one-third of the total budget was allocated for campus audio-visual services provided free of charge to teaching departments.

A charge was made to departments for equipment operators. This was done to encourage instructors to operate equipment and to permit more flexibility in the use of

audio-visual materials.

Thirty-five full-time and 24 part-time employees are on the audio-visual staff. The number of full-time employees in each unit of the audio-visual program are: 6 in graphics, 6 in motion picture production, 9 in still photography, 2 in tape recording, 1 in maintenance, and 12 assigned general duties. Four full-time employees have bachelor's degrees.

Instructors and graduate students assist in the selection of audio-visual materials with the trend toward greater student participation in selection. Facilities, although limited, are available for students to view audio-visual materials, and again the trend is toward increased use by students.

All equipment is centralized in the audio-visual department and is used or assigned to departments as needed. The amount of equipment in this audio-visual department exceeds that of any other included in the study. The special departments for the production of graphic materials, still and motion pictures, and recordings were exceptionally well equipped.

An audio-visual laboratory, with up-to-date equipment was available for faculty and student use. An in-service training program of eight one and one-half hour sessions was conducted in this laboratory each year.

About 50 per cent more space was needed to house the audio-visual department.

Three special projection rooms and four preview rooms were available for faculty use. About 15 per cent of the regular classrooms were equipped for projection of audio-visual materials. Only about 25 per cent of the projection was done by audio-visual department operators.

Records show that during 1951-52, 13,083 films, 148 sets of slides, 1,871 filmstrips, and 937 recordings (disc and tape) were used on the campus.

The audio-visual staff participated in a research project in which the U.S. Navy, through the Office of Education, provided \$10,000 for the revision of the citizenship training program.

The audio-visual director and associate director have provided assistance and direction of several master's and doctor's studies in the audio-visual field.

University E

The audio-visual department at this university dates back to about 1900 when a glass slide library was started. It began and has remained a department of the extension division.

Although the primary reason for establishing an audio-visual department was to provide materials for off-campus use, a few university instructors obtained materials

for campus use.

Except for the addition of a photographic unit, the growth of this department until after World War II was very largely in the off-campus services. It was one of the first to have a library of 16 mm. films and for several years provided projectors as well as films for public school use. The library now has more than 3,000 titles and about 7,000 prints. In addition it has a library of approximately 100 titles for campus use only which have been purchased within the last two years.

Since World War II there has been a rapid growth in the use of audio-visual aids on the campus. The organizational arrangement was changed in 1951 in order to better provide for campus needs. The department, which had been largely self-supported before 1951, was given funds to provide equipment and materials for class use. The 1953-54 budget for campus use is about one-third of the total budget.

No charge is made for any audio-visual services for class use. This is the only audio-visual department that obtained rental materials from other libraries for class use, that did not charge the department making the request.

Ten full-time and 25 part-time employees make up the audio-visual staff. Six of these full-time employees work in the unit that provides off-campus services, three

in the campus center, and one in the photographic unit. The part-time employees are students who do clerical and technical work as needed.

Audio-visual materials for the rental library are selected by the director, while materials for campus use are recommended by instructors to be purchased as funds are available.

Production has been restricted almost entirely to slides which are made at the photographic bureau; however, a tape recording service is in the process of being established.

Materials for use on the campus are from three main sources: (1) the rental library, (2) the campus library, and (3) other university libraries. Instructors are provided catalogs and special lists of audio-visual materials available.

During 1952-53 the audio-visual center provided equipment for use in about 3,500 classes. Student assistants from the center operated the equipment in about 2,500 of these classes. Films or filmstrips were used in approximately 4,000 classes. About one-fourth of these films and filmstrips were obtained from sources other than the audio-visual department's library.

A centralized system of equipment distribution is used. More equipment of all types is needed.

The physical facilities at this university are

extremely limited. Inadequate space and poor arrangement seriously limit the services that could otherwise be provided. There are no preview rooms available for faculty use in the audio-visual department or elsewhere on the campus. One special room is available and is scheduled for classes as requested. About 25 per cent of the classrooms on the campus are equipped for film projection.

No in-service training program is available to instructors but individual assistance is provided on request.

Research funds have not been available; however, audio-visual departmental funds have been used to a limited extent for three research projects. The audio-visual director and the members of the school of education cooperated on all these projects.

University F

This university which was founded in 1841 was one of the last to establish an audio-visual program. Records show the beginning as 1938-39 when a rental library of about 250 films was established in the extension division. One booking clerk with some student help booked and shipped films for off-campus use. Only occasionally were films from this library used on the campus. Except for the addition of titles to the library, very little change took place until 1941. Because of the increasing demand for

films for campus and off-campus uses, a supervisor of the audio-visual program was appointed and the staff was increased to about its present size. Other facilities were expanded at that time; however, providing films for off-campus use has remained the predominant function of the audio-visual department.

The audio-visual library now has about 2,000 titles and about 3,000 prints. Total rentals are about 13,000 reels per year.

The audio-visual department does not have a budget for its use. Funds obtained from rental of films and equipment are deposited in the general university account. All expenditures for audio-visual purposes are approved by the director of extension.

Five full-time and four part-time people are employed in the audio-visual department. The supervisor who has a master's degree teaches in the extension program and in the school of education.

Audio-visual materials are selected by the director of extension and supervisor of the audio-visual program. Some help is received from instructors on the campus but more frequently from off-campus teachers.

There are no production facilities in the audio-visual department; however, well-equipped photography and graphics departments to exist on the campus.

About 125 requests are received each month from instructors on the campus for materials, equipment or

operators.

Audio-visual equipment is owned by each university department but a small pool of equipment is maintained by the audio-visual department. It was believed that the equipment in the audio-visual department was only a small part of the total available for campus use.

The audio-visual department was housed in a building which was well located in relation to the other buildings served by it. Physical facilities were considered adequate for the present operations, but space will be needed if services are expanded. Less than 10 per cent of the class rooms were equipped for film projection.

One special room in the audio-visual department was scheduled as requested for classes and previews.

There was no in-service training program for instructors and no research had been done.

University G

The audio-visual department at this university was established in 1940 to provide films for off-campus use and to provide materials and equipment for the audio-visual courses taught in the school of education.

In 1940 the film library consisted of 56 titles. A few titles had been added by 1943 when its development was practically stopped because the director and only other professional member of the staff began leaves of absence

for military service.

No significant growth took place in this department until 1946 when it became a film depository for a state-wide educational research project supported by the Carnegie Foundation for the Advancement of Teaching and Teaching Film Custodians, Inc. The film library grew rapidly from 1946 to 1949 as new films were added by these organizations to be used in the research project. The library now has about 3,000 titles and about 4,000 prints.

In 1946 a motion picture production unit was added to the audio-visual department, but was removed in 1953 and attached to the purchasing department of the university. Still photography, graphics, and motion picture production are now unified and are under the direction of one man who is responsible to the purchasing agent.

The audio-visual department has 8 full-time and 11 part-time employees, who spend a major portion of their time providing audio-visual materials for off-campus use. The director teaches part-time in the school of education. He has a master's degree but there are no other degree people in the department.

The audio-visual budget is about \$45,000 of which about \$10,000 is appropriated from university funds. This does not include funds for equipment.

Instructors are asked to assist in the selection of materials for purchase, but final decision rests with

the director.

All audio-visual equipment at this university is centralized in the audio-visual department and is used or assigned as needed.

There is no charge to departments for equipment, materials or operators available from the audio-visual department. The equipment pool at this university is one of the largest included in the study.

The audio-visual department is located on the "City Campus" but also serves the "Ag" campus which is about two miles away. Hand carts are used to transport equipment and materials on the city campus. Private cars are used to serve the "Ag" campus.

Physical facilities are considered adequate for present services but will not allow for expansion of services.

About 10 per cent of the classrooms are equipped for film projection. There are no special projection rooms. Two preview rooms are available in the audio-visual department.

No in-service training program for instructors has been started.

The Nebraska Film Program was one of the largest and most significant research studies ever conducted in the audio-visual field.⁴ While this was a state-wide

⁴ Wesley C. Meierhenry, "Enriching the Curriculum Through Motion Pictures," University of Nebraska Press, Lincoln, 1952.

project, the audio-visual director at this university was the associate director of the project.

Seven doctoral studies and 12 master studies were worked out in connection with this project.

University H

This institution was founded in 1891 and started an audio-visual department in 1945-46 as part of the extension program.

Except for a short time at the beginning, the present director has been in charge of the program. He is also assistant director of extension.

To provide off-campus rental of materials and to centralize the services to the campus were the reasons given for starting the program.

The organizational pattern was not obtained from another university but about 35 other departments were visited and features of several programs were adopted.

The department now has two separate units, one for the distribution of materials and equipment to campus and off-campus users, and the other for the production of materials.

Income has increased from about \$3,800 in 1945-46 to about \$30,000 in 1952-53. This income plus a \$20,000 subsidy made up the operating budget for 1952-53. About \$15,000 is allotted for campus use.

Departments are charged for all services to classes.

There are 7 full-time and 25 part-time employees on the audio-visual staff. The director teaches part-time in the department of education and one other staff member devotes the major portion of his time to teaching audio-visual classes for extension.

Four staff members have master's degrees and one has a bachelor's degree. The part-time employees are students.

Materials are selected by the audio-visual staff, but instructors and students are asked to make recommendations.

Facilities are available for the production of slides, filmstrips, still pictures and some graphic materials. Limited facilities are available for the production of motion pictures.

Records to show the use of audio-visual materials on-campus were not available, but it was believed the use on-campus paralleled use off-campus. It was the opinion of the director that audio-visual materials should be as available to faculty and students as library books, but at present funds were not available to establish this service.

A centralized equipment plan is in effect and departments may rent equipment from the audio-visual

department as needed. Operators are provided at \$.75 per hour. The amount of equipment is about average for all universities studied.

A repair service for equipment is maintained. Engineering students are employed for this service.

The audio-visual department has been recently moved into a remodeled building which is well located with respect to classroom buildings. The physical facilities were among the best observed at any university.

Fifteen special projection rooms are available on the campus and about 85 per cent of the projection is done in these rooms. Four preview rooms are available at the audio-visual center for staff, faculty, and student use.

There is no organized in-service training program but individual assistance is available on request.

University I

This university was founded in 1890 and established an audio-visual program in 1921 as a part of extension to serve off-campus needs. Although originally a department in extension, it is now a unit of the educational materials service which is an extension department. Two other units, (1) evaluation and testing, and (2) public information are also in the educational materials service department.

In addition to these three units, a staff member who will spend one-half time in research and production of

audio-visual aids has recently been added to the educational materials service staff. This was a joint appointment with the school of education.

An extension specialist in charge of audio-visual education heads the audio-visual unit, which provides for distribution of equipment and materials to campus and off-campus users.

The audio-visual department has recently been moved from a location off the main campus to a centrally located building on the main campus. The combination of new staff members and re-location of the department has caused a very noticeable increase in the use of audio-visual aids on the campus. It is, however, the opinion of the director that the primary function of the audio-visual department is to serve off-campus needs.

The budget for the audio-visual unit was about \$47,000 for 1952-53. About one-half of this amount is spent for campus services.

Equipment, materials, and operators are provided free of charge for classroom use.

Eight full-time and nine part-time employees are on the audio-visual staff. The director and educational specialist in research and production are included with part-time employees. Other part-time employees are students.

Three full-time employees have master's degrees and one has a bachelor's degree. One part-time employee

has a doctor's degree and one has a master's degree.

The audio-visual staff selects materials for purchase but instructors are asked to make recommendations.

No production facilities are available in the audio-visual department. A photographic service which produces slides, filmstrips, still pictures, and some motion pictures is attached to extension but is not a part of the educational materials service department.

Plans are now under way to set up a graphic arts unit as part of the audio-visual program.

Records show that audio-visual equipment was used about 13,000 times, and about 8,100 films were used in 1952-53 on the university campus.

All audio-visual equipment on the campus is centralized in the audio-visual department and is used or assigned as requested. The amount of equipment available is greater than at any other audio-visual department except one.

About 15 per cent of the classrooms are equipped for film projection and no special projection rooms are available for classes. Three preview rooms are available for audio-visual staff and faculty use.

One audio-visual seminar for in-service training of instructors has been held and others are planned.

Research studies in the audio-visual field have been limited to an occasional master's or doctoral study

by students in education. A staff member to direct research has recently been added to the audio-visual staff.

Evaluation of the Various Audio-Visual Programs

The basic philosophy underlying an audio-visual program determines to a considerable extent the aims and purposes of the program. To evaluate the various aspects of a program requires an understanding of the philosophy that guides the program.

Three different philosophies appear to have influenced the programs in this study. They are: (1) that the primary function of the audio-visual department is to serve off-campus needs, (2) that the primary function is to serve the needs of the campus, and (3) that the training of audio-visual specialists is an integral part of the audio-visual program which campus and off-campus services should augment.

That these programs all began as departments of the extension divisions indicates that a major, if not the primary reason for their organization was to serve off-campus needs. As pointed out in Chapter I, serving off-campus needs is still an important function of all these audio-visual programs. From the material presented in this chapter it appears that the audio-visual departments at Universities B, C, F, and G are still primarily concerned

with serving off-campus needs and are organized and administered largely to accomplish that purpose. Universities E and I would probably be in this category; however recent organizational changes indicate that serving the campus needs approaches in importance that of serving off-campus needs.

Universities D and H are so organized and administered as to place the major emphasis on the campus audio-visual program.

University A stands alone in having a program which emphasizes the training of audio-visual specialists. It also places a major emphasis on serving off-campus needs.

It should be pointed out that the organizational patterns of these audio-visual programs do not necessarily reflect the philosophies of the directors or other university officials. Circumstances such as budget and physical facilities beyond the control of university officials have to a considerable degree influenced the organization and growth of these programs. That some of these programs appear to have grown like "Topsy" indicates the lack of a definite philosophy or at least a lack of direction by the university administration.

An analysis of the audio-visual programs at universities B, C, F, and G shows that the rental film libraries are the most important aspects of these programs. All full-time employees are primarily concerned with the

rental of films. They are very largely self-supported and expansion of services is largely controlled by the amount of income from rental films. This does not imply that these programs do not serve campus needs but rather that the campus service is subordinate to the film rental service. As they are now organized and administered, growth will likely be in the direction of the off-campus program.

In this respect these four programs appear to be different from those at Universities E and I. Recent organizational changes at E and I have paved the way for growth in services to the campus.

At Universities D and H, the rental film libraries are also important aspects of the audio-visual programs; however, a much better balance between the campus and off-campus services exists than at the six universities previously mentioned. Facilities to serve the campus have been developed and at present overshadow the facilities for off-campus service. Particularly is this true at University D where facilities exist to serve campus needs very adequately. The graphic arts, still and motion pictures, and repair and maintenance units are well-equipped and are administered so as to allow maximum use by instructors.

The audio-visual laboratories at these two universities were valuable assets to the in-service training

program for instructors as well as education classes. It is significant that the salary of one member of the audio-visual staff at University D was voluntarily paid by a teaching department because this department was using more than a proportionate share of the audio-visual facilities.

The large and complex audio-visual organization at University A provides for the training of audio-visual specialists and for campus and off-campus services. The training program is in cooperation with the school of education and is based on the premise that audio-visual education in the public schools and colleges is primarily the job of the specialist.

Fifteen graduate courses for a total of 49 semester hours credit are offered in the school of education. This does not include thesis and special problems courses allowing approximately 25 semester hours credit.

These courses are taught by audio-visual staff members who hold joint appointments with the school of education. Audio-visual facilities are used as training laboratories for students. Many of the part-time employees of the audio-visual department are graduate assistants pursuing a major or minor in audio-visual education.

A number of graduate positions, assistantships, and fellowships are available each year in the following areas: general administration of an audio-visual center, selection of materials, school and community circulation,

campus and college circulation, utilization, and all phases of production, including planning and scripting, still and motion picture photography, audio, and graphic arts.

Evidence that a training program for audio-visual supervisors in this state is desirable is found in a recent announcement which states: "Indiana's Teacher Training and Licensing Commission has recently approved a certificate for the supervisor of audio-visual materials. Persons completing the course work outlined below and possessing the other qualifications will be able to obtain the certificate of audio-visual supervisor from the State Department of Education. While the Commission has approved the certificate, it is not required in Indiana at the present time. However, it is expected that, increasingly, superintendents and principals employing audio-visual supervisors and coordinators will want persons going into such positions to meet the requirements approved."

Following are the general requirements:

- A. Baccalaureate degree from a standard or approved college or university.
- B. Elementary or secondary teacher's certificate.
- C. One year of graduate study with a master's degree from a standard college or university, including:

	Minimum no. sem. hrs.
1. Basic education courses	
A minimum of one graduate course in each of the following areas:	10-15
School administration	2-3
Supervision of instruction	2-3

Minimum no.
sem. hrs.

Educational psychology	2-3
Elementary curriculum	2-3
Secondary curriculum	2-3

2. Audio-visual education 10-15
Graduate courses in three areas,
as follows:

Selection, circulation, utilization	4-6
--	-----

Preparation of audio-visual materials (including graphics, filmstrips, and radio programs)	4-6
---	-----

Administration of audio- visual materials program	2-3
--	-----

3. Electives 0-10

D. Three years of successful experience as principal,
supervisor, or teacher within the last ten years.⁵

No other university included in this study offers a training program for audio-visual supervisors, nor has any of the state licensing commissions approved requirements for certification of audio-visual supervisors.

The courses offered in the schools of education at all universities except A are general or special problems courses for a total of 2 to 6 semester hours credit. Some of the audio-visual directors at these universities did not agree with the premise that audio-visual education was primarily the job of the specialist.

⁵ Bulletin of the Audio-Visual Center, Vol. III, No. 3,
Indiana University, Bloomington, October, 1953, pp. 13-14.

The off-campus audio-visual service at University A is organized around an outstanding rental film library. During 1952-53 the circulation of educational motion pictures from this library was about 100,000 reels.

The campus audio-visual service was not on a par with the other two phases of this program. The lack of equipment was particularly noticeable and may be the major reason why comparatively small amounts of audio-visual materials were used in university classes.

Production facilities are used to some extent by instructors but for the most part serve the needs of the audio-visual department rather than the instructional program of the university.

C. R. Carpenter has stated that:

All parts of the university should be integrated with the whole and should make due contributions to the principal functions of the institution. Let it be agreed that the main functions of the university are to instruct people and to investigate important unsolved problems.

The evaluation of an audio-visual program can be made only when it is ascertained to what extent the program is contributing to instruction and research.⁶

While each audio-visual program appears to have been fairly successful in terms of its primary function,

6 C. R. Carpenter, "A Constructive Review of Characteristics and Trends of University Motion Picture Production Units," Journal of The University Film Producers Association, October, 1950, pp. 23-24.

when considered in light of this statement by Carpenter
there is much to be desired.

Chapter IV

SUGGESTIONS AND RECOMMENDATIONS FOR IMPROVEMENT OF THE CAMPUS AUDIO-VISUAL PROGRAM AT THE UNIVERSITY OF KANSAS

Introduction

In order to make intelligent suggestions for the improvement of a specific audio-visual program it is necessary to understand the philosophy on which it is based and the purpose or purposes for which it exists.

The basic philosophy under which the K.U. audio-visual program operates was in essence stated in Chapter I as a definition of audio-visual instruction. To accept a definition of the basic expression is almost equivalent to establishing a guide for operation of the program.

Audio-visual aids are not of themselves instructional. They are only the tools of teaching and learning and are therefore the tools of the teacher and the student. When properly used for the purposes intended these aids are assets to teaching and learning.

Audio-visual instruction is not a way of teaching but a part of teaching. It is not something that can be acquired by the "specialist" and tacked on to the teaching process; it must be embodied in methods of teaching.

In general, the audio-visual department is a service organization in that it provides aids for instruction

but does not instruct. The main purpose of the program is to provide the audio-visual equipment and materials of instruction for campus and off-campus needs. It should also assist in providing the techniques for using these aids in instruction. These two phases (campus and off-campus) of the program shall be developed concurrently and, in-so-far as possible, each shall supplement the other.

The purpose of this study was to make suggestions and recommendations for the improvement of the campus phase of the program. There are perhaps many ways in which any program may be improved. In general, consideration will be given to only three ways in which the campus audio-visual program may be improved, namely: (1) reorganization and/or expansion of existing services, (2) discontinuance of one or more services, and (3) addition of new services.

To be in harmony with the basic philosophy, the campus audio-visual center would be primarily an administrative unit to procure, maintain, and expedite the use of audio-visual aids for the instructional program of the university.

Audio-Visual Services Required

Table 2 shows the services provided at each university by the audio-visual department. While no audio-visual department had complete facilities for all services listed, each service was provided by at least two

universities. If a service has been successfully provided at any one university, it would warrant consideration as a way to improve the program at the University of Kansas; however, success at one or all eight universities would not necessarily insure its inclusion in the K.U. program.

The procedure used to discuss these services will be: (1) describe what is done at K.U., (2) describe what is done at the other universities, (3) give opinions of the directors and professional writers, (4) consider in the light of philosophy at K.U., and (5) make recommendations.

Audio-Visual Materials

The expression "audio-visual materials" was defined in Chapter II as being any instructional materials used to enhance learning by sound or sight. As used in this study it includes only films, filmstrips, slides, recordings, and graphic materials.

These instructional materials were provided for class use at the eight universities in three ways. They were purchased, rented, or produced. Practically all the materials that were purchased were placed in the film libraries and were available for use off-campus as well as in classes on the campus. In this way they were made to produce income which in most cases was used to buy more materials or to defray costs of the department.

Only two universities made a charge to the teaching departments for use of these materials.

These libraries were largely composed of 16 mm. films for all grade levels, which were listed and described in catalogs for general distribution. They were booked on a "first come, first served" basis.

Materials were also obtained on a rental basis for campus use. When instructors requested materials not available on the campus, they were ordered from other universities or commercial libraries. In all cases the rental and transportation costs of these materials were charged to the teaching department making the request.

Four of the audio-visual departments (A, B, D, and H) had units to produce materials for campus use. A and D had units to produce films, filmstrips, slides, recordings, and graphic materials. H has a unit to produce filmstrips, slides, and, to a very limited extent, films, while B produced only graphic materials. All audio-visual departments, except F, had facilities for reproducing tape recordings. Only A and D had adequate facilities for producing original recordings.

The methods of providing materials for campus use at the University of Kansas differ from the other universities in two respects. First, there are two separate film libraries, one for campus use exclusively, and a general rental library; and second, audio-visual materials

for class use are provided free of charge, whether they are obtained from the campus library, the general rental library or from sources off the campus. The materials that are produced specifically for class use are provided free of charge. Facilities are available to produce slides and reproduce tape recordings.

The directors of the audio-visual departments believed that providing materials for campus use was a function of their departments, and the ideal would be to provide these materials free of charge. They were, however, somewhat skeptical about the practicality of such a practice. They did not believe that sufficient money would be appropriated to make this practice workable. All agreed, however, that if sufficient funds were available to provide materials free of charge, that a greater use would result. They were not particularly concerned about instructors abusing the privilege of obtaining materials free of charge.

These directors also doubted the wisdom of having two separate film libraries, and again mainly from the monetary rather than the educational point of view. Three of the directors believed that adding prints to the rental library would to a considerable extent serve the same purpose as the campus library. The other five directors thought that a library for campus use only would be the ideal but at present an impractical thing to do. They

believed that materials, especially films, were too expensive to own for the small amount of use on the campus. They maintained that these materials should also produce income.

The views of the directors regarding the practices of providing materials free of charge for class use and maintaining separate libraries may be summed up by stating that they believed these practices educationally sound but unworkable and therefore impractical at the present time.

Practices that effect the whole university such as providing materials free of charge or maintaining a separate campus audio-visual library, should be governed by policies made by the university administration rather than the audio-visual director. These practices are now governed by policies of the University of Kansas. It is recommended that they be continued and expanded.

These recommendations are based on the following points: (1) that audio-visual materials should be, as other instructional materials are, provided for classroom use, (2) that the university will save money if it eliminates the departmental charge, (3) that a greater use will result if materials are provided free of charge, and (4) that a separate library for campus use is essential for the proper usage of audio-visual materials.

There seems to be no disagreement with the opinion that audio-visual materials should be provided for

the instructors' use, but there is disagreement in whether the funds to provide this service should be placed in the audio-visual department budget or in the teaching department's budgets.¹ It was the opinion of one director that if many department heads put "pressure" on a budget committee more money for audio-visual materials would result than if only one department head requested money. In specific cases this could be true; however, if only a certain amount of money is available for instructional materials, regardless of whether it is placed in one budget or many budgets the total remains the same. If centralization of funds did no more than to eliminate clerical costs for bookkeeping and transfers, a considerable saving would result.

The following reasons seem to justify the existence of a library for campus use exclusively. They are: (1) that audio-visual materials should be available when needed, (2) that audio-visual materials should be selected by those who will use them, (3) that many of these materials are too valuable to be put in a general rental library, and (4) that a better use of these materials will result.

1 Clarence Henry Kurth, "A Survey of Audio-Visual Programs in Schools of Education of Selected Midwestern Universities, Doctor's Thesis, Indiana University, 1951, p. 231.

Materials in a rental library are booked for months in advance of the use date and shifting of dates on heavily booked films is often impossible. Therefore, to be sure of a film the instructor must book it well in advance and proceed to have his class at, but not past, the place in the course where the film would be most useful. Thus the instructor must cover the course material at a predetermined rate or risk not having the film at all or having it when it would be of little value.

Materials may be obtained from the campus library at Kansas University with only one day's advanced booking. They may be kept as long as needed. Only rarely do conflicts in requests occur.

One important criterion for selection of films for a rental library is anticipated income from rental use. This amount weighed against the initial costs usually determines whether or not the film is purchased. If this were not so, self-supported libraries would not long exist. Guss reports that initial cost, rental cost to the user, and anticipated income from the material if placed in the library are the factors considered by film librarians to be the crux of their film selection policies.² In general

² Carolyn Guss, "A Study of Film Evaluation and Selection Practices in Twelve Universities and Colleges with Recommendations for Improvement," Doctor's Thesis, Indiana University, June, 1952, p. 158.

college level films have a higher initial cost and fewer rental requests than elementary or secondary level films and are, therefore, purchased less often. Because these libraries must "pay their way" the director and not the instructor must have final "say" on what is purchased.

Many university level films are very expensive; \$200 is not an unusual cost. While they will last for many years with proper care, they may be completely ruined by a careless operator or by equipment in need of repair.

The average number of bookings per print of twelve rental libraries averaging 5,000 prints each, was 7.9 for 1950-51.³ The average number of bookings per print of films in the campus library at K.U. for 1952-53 was about 6. While the number of bookings per print from the campus library was less than from the rental libraries, it is believed that the convenience of having films available when needed more than offsets the additional revenue that might be obtained from rentals.

Records to show the amount of use made of audio-visual materials on the various campuses were very difficult to interpret, and specific conclusions drawn from them would have very little accuracy. The best estimate from the figures available would indicate that less than one sound film was used each semester in each

3 Ibid., p. 153.

3 semester hour course at University A, with a comparable figure of 4 each semester at University D. Other universities would appear to be somewhere between these two figures although comparable figures were not available.

Even with these very rough estimates it seems safe to draw the general conclusion that these universities are not using audio-visual materials to any appreciable degree.

In addition to purchasing and renting audio-visual materials for class use, units should be maintained to produce materials. Because of the limited demand for audio-visual materials at the college level, commercial concerns have been slow to develop and produce these materials. The market potential for elementary and secondary level materials has been much greater than for college level materials. Therefore commercial concerns have concentrated on the production of elementary and secondary level materials, at the expense of those usable at the college level. For the same reason rental film libraries have comparably few materials usable at the college level.

Still photography, graphics, and motion picture production units were considered essential parts of the audio-visual organization at all universities included in this study. However, there was considerable disagreement regarding the purposes for which these units should exist.

Three of the directors believed that materials should be produced for specific use at the university and should not be offered for sale. They argued that a university should produce only those materials that were not otherwise available, and that "need at the university" should be the criterion used to determine what to produce.

The other directors believed that in view of the high cost of producing audio-visual materials and especially sound films that part of these costs should be defrayed by selling prints.

The University of Kansas now has a still photography unit but has no facilities for the production of graphic materials or motion pictures.

It is recommended that facilities be provided for the production of audio-visual materials that are needed for instructional purposes at the university and are not available on a purchase or rental basis.

The equipment needed to produce the various audio-visual aids is expensive and represents a relatively large capital outlay. For this reason unnecessary duplication should be avoided in the purchase of any equipment and also in the hiring of personnel to operate the equipment. Maximum utilization of equipment and personnel can be derived if all production facilities are organized under one head. It is therefore recommended that the photographic unit at the University of Kansas be

enlarged to provide for the production of graphic materials and motion pictures.

At University D instructors are encouraged to use the production facilities to produce materials for class use. Graphic materials costing \$25.00 or less are produced at no cost to the department, while on orders above this limit the department pays the difference.

It is recommended that instructors at K.U. be encouraged in every way to produce their own instructional materials. Production facilities especially for graphic materials should be open to instructors and personnel should be provided to assist them in planning and producing materials.

Audio-Visual Equipment

A centralized system of equipment distribution was in effect at all universities studied except B and F, and was the plan endorsed by all directors.

It is the plan now in effect at the University of Kansas.

A centralized system of equipment distribution provides that the director of the audio-visual center shall have custody of all audio-visual equipment. He shall assign it to departments as needed and shall provide for its repair and maintenance. Equipment may be assigned for a short time or for an entire semester as needed, but must be returned

to the equipment pool when no longer needed.

This plan is considered superior to de-centralized or departmental ownership of equipment for the following reasons: (1) it provides for better utilization, and (2) it permits a degree of standardization which is necessary for operation, maintenance and repair.

Additional equipment of all types is needed at the University of Kansas. Sound projectors and tape recorders are in the greatest demand and should be added to the equipment pool as soon as possible.

University D, which is about the same size as the University of Kansas, has over twice as many sound projectors and reports that more are needed. While requirements vary from university to university even within the same enrollment group, an examination of Table 7 shows that the University of Kansas is below the average for most types of equipment.

Repair and maintenance is essential to the proper operation of equipment.⁴ It is recommended that facilities be established for maintenance and minor repair of equipment.

Operators for Audio-Visual Equipment

While most audio-visual equipment is relatively easy to operate, some equipment, particularly the sound

⁴ Editorial--"Check-Up for Equipment," A-V World, June, 1953, p. 354.

projector, requires an experienced operator for successful operation.

Most authorities agree that the instructor should operate the audio-visual equipment; however, there are valid arguments in favor of a projectionist provided by the audio-visual department.⁵

The arguments in favor of the trained operator are: (1) better projection usually results, (2) less danger of damage to films and equipment, and (3) frees the teacher of the responsibility.

The arguments in favor of the teacher operating the equipment are: (1) allows for more flexibility in the use of equipment and materials, and (2) saves the cost of an operator.

All universities in this study provided operators for audio-visual equipment on request. Departments were charged for these operators at Universities C, D, F, and H, while the other universities provided operators at no cost to the departments. The directors were of the opinion that instructors should be encouraged to operate equipment but that operators should be provided on request.

Operators are provided at no cost to the departments at the University of Kansas, but instructors are

⁵ Edgar Dale, "Audio-Visual Methods in Teaching," The Dryden Press, Inc., New York, 1946, p. 476.

encouraged to operate all equipment except the sound projector. Special instruction is provided for those who wish to operate the sound projector.

It is recommended that the audio-visual center continue to provide operators when necessary for successful classroom projection. No charge should be made to departments for these operators but instructors should be encouraged to operate equipment in order to reduce costs to a minimum.

Preview Service

Complete agreement existed among the audio-visual directors interviewed regarding the desirability of providing free preview service to all instructors. Almost without exception audio-visual materials should be previewed by instructors before they use these materials in the classroom. In addition to previewing for classroom use, instructors should have the opportunity to preview all materials considered for purchase. It was previously stated that no audio-visual materials should be purchased for university use except as recommended by instructors who will use them.

It is recommended that preview rooms with equipment, and operators if necessary, be available at all times for faculty use and that instructors be encouraged to use these facilities in any way that will serve instructional needs.

In addition to providing preview rooms, instructors should be permitted to check out equipment and materials for previews in their homes or offices.

Special Service for Students

In general audio-visual materials have been considered as instructional materials for class or group use rather than for individual use.⁶ This is especially true for those materials that require projection.

There was general agreement among the directors interviewed that audio-visual materials should be made available for class use at the universities.

Whether or not audio-visual materials should be provided for individual use by students had apparently not been considered to any great extent. However, seven of the eight directors answered "yes" to the question, "If it were possible for you to permit individual students to view films of their own choosing, would you consider this proper usage of films?" Further discussion on this topic brought forth statements such as: "We haven't thought much about it because that decision would have to be made by the university administration;" "Our facilities wouldn't begin to take care of the requests, but it would be a fine thing to do." "That may come, but it's several years off." "We extend that privilege

⁶ Edgar Dale, "Audio-Visual Methods in Teaching," The Dryden Press, New York, 1946, p. 195.

to students in education but don't have facilities at present to take care of the whole student body." "That would be a smart thing to do but would sure cost a lot of money." "I don't believe it has ever been tried except for students in education--but I think all students should have the same privilege."

Observations during the past five years in working directly with university instructors cause the author to consider the issue of "providing facilities for students to use audio-visual materials" to be most important in determining the future development of a campus audio-visual program.

Several factors lead him to believe that facilities for the students to use audio-visual materials much as they use reference books should be provided. The most important factor is the time involved in showing materials. In several fields there are now so many audio-visual materials available that it would be impossible to use all of these in class, if no time was devoted to anything else. Many of these materials, while important to the subject, deal only with the fringe area and teachers feel they are not justified in taking class time to show them. Some teachers at the University of Kansas have scheduled extra class periods in order to use more audio-visual materials, but these sessions have been generally unsuccessful because of conflicts with other classes.

It has been generally considered that audio-visual materials and especially films must be taught and therefore the teacher must be present in order to guide the discussion.⁷ Recent research indicates that this is not the case, and was pointed out in 1952 by Guss when she concluded that: "Research seems to indicate that film introductions and summaries do not significantly increase the amount of learning."⁸

On the basis of this research it would appear that students could obtain as much information from viewing films, filmstrips and slides and listening to recordings in private sessions as in class. Why then have these materials been considered exclusively for group use?

The cost of providing facilities to take care of individual requests would seem to be the most important factor.

The most expensive audio-visual materials and the most difficult to project are films. If physical facilities were available most other materials would be comparatively inexpensive and easy to provide for use by individuals.

7 Harry C. McKown and Alvin B. Roberts, "Audio-Visual Aids to Instruction," McGraw Hill, New York, 1949, pp. 56-60.

8 Carolyn Guss, "A Study of Film Evaluation and Selection Practices in Twelve Universities and Colleges with Recommendations for Improvement," Doctor's Thesis, Indiana University, June, 1952, p. 86.

If costs of providing sound films were weighed against total use, there would be at least some justification for individual showings. A film projected with equipment in good repair may be shown several hundred times and still be in good condition. The average life of a film before becoming obsolete is about five years, and is shown about 50 times.⁹ It is evident, therefore, that films in university libraries could be shown many more times before they become obsolete. This factor should be considered in determining costs.

Perhaps another reason for reserving films for class use has been the reluctance of the "audio-visual educator" to release these materials. To some extent audio-visual materials are now as books were fifty years ago--materials to be kept well guarded for fear they be misused, lost, or destroyed.

In 1946 Noel and Noel in an article entitled "Looking Ahead Twenty-Five Years in Audio-Visual Education," stated that: "provisions will be made for cubicles where students can view motion pictures, filmstrips, slides and other projected materials. Similar rooms will be available for auditioning radio transcriptions, records of speeches

9 Carolyn Guss, "A Study of Film Evaluation and Selection Practices in Twelve Universities and Colleges with Recommendations for Improvement," Doctor's Thesis, Indiana University, June, 1952, p. 153.

and dramatic plays. Visual and auditory 'reference' materials will be available in sets on various subjects much as encyclopedias are now. Books and audio-visual materials will be correlated for certain core courses or units common to most curriculums."¹⁰

Evidence that Noel and Noel were not "idle dreamers" is found in an article by Phillip Lewis, entitled, "A-V Blueprint for The Chicago Teachers College" in which he describes the audio-visual facilities available at that institution. He states that:

The audio-visual unit is planned to permit students to utilize items of audio-visual equipment with the same degree of freedom that is now associated with selecting a book from the reference shelf, or consulting a back issue of a periodical. It will not only house slides, tapes, records, transcriptions, and other audio-visual materials, but also books, suppliers' catalogues, and pamphlets which may be needed in connection with audio-visual work. It is intended to permit with-drawal of these materials for home study whenever circumstances permit. Library personnel will be stationed at the service counter and will also arrange for the ordering and showing of pertinent materials. Assistance will be given in problem situations which involve the various resources.

The creation of this audio-visual unit is based upon the demonstrated need for such facilities. The enlistment of all departments and students in planning, developing, and using these resources provides invaluable rewards and should assist in turning out better teachers--individuals who accept

10 Francis Wright Noel and Elizabeth Goudy Noel, "Looking Ahead Twenty-Five Years in Audio-Visual Education," Educational Screen, February, 1946, pp. 67-69.

as a basic tenet the principle of creative thinking as a means of problem solving.¹¹

A recommendation to provide all audio-visual materials for use by students in the near future at the University of Kansas would perhaps be premature; however, it is recommended that this be the goal and that it be accomplished as rapidly as facilities can be made available.

In-Service Training Program

The use of audio-visual aids in teaching is relatively new and has developed rapidly within the past ten years. Many university faculty members have had little, if any, experience in using these aids. Their newness plus the fact that most of these aids require the use of a mechanical "gadget" to project them makes an in-service training program for instructors necessary.¹²

All eight of the audio-visual programs offered something in the in-service training area, and in each case the director expressed the desire to enlarge this portion of his program. In general, in-service training had been limited to providing catalogs, lists, and booklets describing materials and equipment available and assistance

11 Philip Lewis, "A-V Blueprint for Chicago Teachers College," Educational Screen, February, 1952, pp. 56-57, 71-72.

12 Gilbert G. Weaver and Elroy W. Bollinger, "Visual Aids," D. Van Nostrand Company, New York, 1949, p. 334.

to individual instructors on request.

University D had organized classes which met for eight periods each year open to all instructors on a voluntary basis. University C had three such instructional periods each semester. University I had planned several seminar and workshop sessions to be held this year.

The lack of official recognition by the university administration of the need for in-service training for instructors was given as the greatest deterrent to a successful program.

Other than the distribution of catalogs, lists, and information regarding new materials and equipment, in-service training at the University of Kansas has been limited to assistance to individuals on request. It is significant that these requests have noticeably increased in the last few years. Several teachers have asked about organized classes or group instruction stating that they felt it was an imposition to ask for individual assistance.

No matter how much audio-visual material and equipment is available to faculty members or how elaborate the services provided, these are worthless unless the instructors know about these facilities, desire to use them, and actually utilize them in their instructional program. It is the function of in-service training to facilitate the achievement of these objectives. Witt emphasized that "There will always be a need for someone

to provide the leadership required to generate teacher interest in the use of audio-visual materials and to help teachers make effective use of these tools for learning."¹³

It is felt that the in-service training program as developed at University D is a good example to follow in developing a program at the University of Kansas. It differed from the other programs in that organized class sessions were conducted in a well-equipped audio-visual laboratory. Instructors were given the opportunity to operate equipment and to become acquainted with the latest materials and techniques available. This training has been so favorably received that some deans and department heads have requested teachers to take it.

The addition of an organized group training program with suitable laboratory facilities to the already existing program at the University of Kansas is recommended.

Research

It was stated in Chapter III that research in the audio-visual field at the university level was practically non-existent at the universities included in this study. There was, however, considerable research in the use of audio-visual aids at the elementary and secondary levels.

¹³ P. W. F. Witt, "A Yardstick for Evaluation," Educational Screen, June, 1948, p. 293.

In most of these projects audio-visual personnel had cooperated with school of education personnel to carry out the research.

No specific funds for research had been made available to the audio-visual departments, but in some cases projects had been supported by funds which the directors were able to spend for materials and equipment needed.

With the exception of the "Nebraska Project"¹⁴ practically all research had been in connection with master's and doctor's theses in the school of education. Universities A and H have recently added staff members to conduct research in the audio-visual field, but the other audio-visual departments had no personnel assigned to research.

According to Allen, the major current audio-visual research effort is by three government financed projects: (1) The Pennsylvania State College's Instructional Film Research Program, under the direction of C. R. Carpenter and supported by the U.S. Navy, (2) the Air Force's Audio-Visual Research Program, and (3) the Navy Special Devices Center. Other audio-visual research is being conducted, under contract with defense agencies, at Boston University,

¹⁴ Wesley C. Meierhenry, "Enriching the Curriculum Through Motion Pictures," University of Nebraska Press, Lincoln, 1952.

Cornell University, New York University, University of Southern California, and Queens College.

Allen believes the trend in audio-visual research is away from comparative research in which the relative effectiveness of the different materials is determined generally. Researchers are now studying the specific elements in materials that produce greater learning and investigating such problems as attitudes and opinion change, perceptual principles as applied to audio-visual materials, and the effectiveness of different techniques in the classroom use of these materials.¹⁵

What should be the function of the audio-visual department in research studies? On this point five directors did not believe that research was a major function of the audio-visual department and preferred to cooperate in, rather than initiate and conduct research. Three directors believed that research was a major function of the audio-visual department and should be initiated and conducted by audio-visual staff members.

In the opinion of the author research having to do with the services provided by the audio-visual department would properly be relegated to it, but research regarding the use of audio-visual aids in instruction

¹⁵ William Allen, "Audio-Visual Research - A Survey Look at Past and Present," Educational Screen, November, 1951, pp. 360-361.

should be the function of teaching departments or special research departments. Complete cooperation in every respect with departments conducting research having to do with the use of audio-visual aids would certainly be recommended.

A workable solution to the research problem seems to have been found at University I, where a staff member has recently been employed to serve half time on the school of education staff and half time on the audio-visual staff. While the major portion of his time will be spent in research in the audio-visual field, he will also teach in the school of education and assist in the organization of production units for audio-visual materials.

Audio-Visual Facilities Needed

This chapter thus far has dealt with the services which are considered necessary in the campus audio-visual program. The remainder of this chapter will deal with the organization and administration, budget, physical facilities, and staff necessary to provide these services.

Organization and Administration

All audio-visual programs in this study are administratively a part of the extension program. In each case the head of the audio-visual program was responsible to the director or dean of the extension division. This adminis-

trative arrangement is most commonly found in the major universities and colleges in the United States.¹⁶

As long as audio-visual departments remained as primarily film distribution centers this arrangement appeared to be satisfactory. As the function of the audio-visual departments expanded to include a campus service the feasibility of the extension hook-up began to be questioned. To what administrative unit should the audio-visual program be attached? Should it be a separate administrative unit?

A great deal more research would be necessary to satisfactorily answer those questions; however, there are four administrative arrangements which appear to be satisfactory in specific situations. These four arrangements are: (1) a separate administrative unit, (2) attached to extension, (3) attached to the school of education, and (4) attached to the general library.

Four directors of the audio-visual departments included in this study stated that they were satisfied with the administrative arrangement as part of extension, two indicated that they favored a separate administrative unit, and two thought a school of education tie might be more satisfactory. Each director gave an emphatic "no" as

¹⁶ Harry M. Kauffman, "Audio-Visual Programs in the State Universities," Educational Screen, October, 1946, p. 442.

an answer to the question, "Do you think the audio-visual department should be administratively a part of the general library?"

That the librarians believe the campus audio-visual program to be a function of the library is shown by the many articles which have appeared in the literature in past few years. Typical of these articles is one entitled, "Audio-Visual School Library Service," by Margaret I. Rufsvold, in which she states that: "It is logical and desirable that the library serve as a materials bureau. The librarian has been trained in cataloging, processing, and circulating materials and he usually serves as consultant and advisor to teachers and students when further information is needed."¹⁷

In a report to the Provost of Columbia University, the library committee on audio-visual facilities advised that: "Administratively, the audio-visual program should be a part of the libraries. However, it should not be confused with the existing library departments but should be a completely new and distinct division."¹⁸

17 Margaret I. Rufsvold, "Audio-Visual School Library Service," American Library Association, Chicago, 1949, p. 38.

18 Herbert Roland Jensen, "A Survey of Audio-Visual Activity at Columbia University and Recommendations for Its Improvement," Doctor's Thesis, Teachers College, Columbia University, 1949.

Another recent development is an interest by library schools in providing audio-visual courses for librarians. In an article entitled, "Librarians Emphasize Need for A-V Knowledge" the audio-visual specialists and librarians from Illinois and Indiana concluded that: "Librarians must acquire a basic knowledge of audio-visual materials and equipment as well as a specialized knowledge of print. In the long run, only a cross-media subject or problem approach to knowledge will prove efficient."¹⁹

A project supported by a two year \$28,000 grant from the Carnegie Corporation of New York was started in 1952 by the School of Librarianship, University of California, for the purpose of isolating, identifying, and developing the content that should be taught to the first-year library school student to enable him to promote, acquire, organize, and administer collections of audio-visual materials.²⁰

That the librarians are moving rapidly to acquire and distribute audio-visual materials is seen in a report of the American Library Association which states that about 25 per cent of the public libraries in cities over 2,500

19 Editorial, "Librarians Emphasize Need for A-V Knowledge," A-V World, May, 1952, pp. 26, 2-3.

20 Editorial, "Research Project Started by Berkeley Library Staff," A-V World, November, 1952, p. 644.

population in the U.S. provide audio-visual services to groups.²¹

While no audio-visual program at a major college or university is attached to the library, several smaller colleges use this administrative arrangement.²²

Recent administrative changes in audio-visual programs have indicated a trend in the direction of a separate administrative unit. In 1948 the University of Michigan removed the audio-visual program from extension and made it a separate administrative unit responsible to the university administration through an executive committee. At Syracuse University, Minnesota University, and Penn State College the campus audio-visual programs are separate administrative units. The film libraries at Penn State College and Minnesota University are still part of extension and at Syracuse University the film library is attached to the school of education.²³

Among those who advocate the separate administrative unit is Kurth who concluded that: "The Audio-visual Center needs to be so established within the administrative framework of the university that its director can

21 Editorial, "Library Survey Reveals 25% Have A-V Service," Film World, December, 1953, p. 752.

22 Lula K. Pratt, "An Integrated Audio-Visual Library Service," Educational Screen, January, 1951, p. 19.

23 Carolyn Guss, "A Study of Film Evaluation and Selection Practices in Twelve Universities and Colleges with

consult freely and easily with the executive staff officers of the university; in most institutions this can best be achieved when the center is established as a separate administrative unit."²⁴

There appear to be two main reasons for questioning the feasibility of the attachment of the audio-visual program to extension or to any other division or department: (1) that the campus audio-visual program must be free to cut across departmental lines and therefore should not be attached to any administrative unit, and (2) that the larger or parent unit tends to dominate the audio-visual program. This is particularly noticeable in that many audio-visual programs that are attached to extension are by and large rental libraries to serve off-campus needs.

The audio-visual department at the University of Kansas since its beginning has been an administrative unit within the division of extension. Although there has been no connection administratively, a close working relationship has existed with the school of education. For several years the director of the audio-visual department has taught

Recommendations for Improvement," Doctor's Thesis, Indiana University, June, 1952, pp. 124-47.

²⁴ Clarence Henry Kurth, "A Survey of Audio-Visual Programs in Schools of Education of Selected Midwestern Universities," Doctor's Thesis, Indiana University, 1951, p. 223.

classes in the school of education and at present is assistant professor of education on that staff.

There has been little or no connection or coordination of the activities of the audio-visual department and the general library.

Once a department at a university has been established in an administrative framework, it is often difficult to change it. However, it is significant that the tendency has been for extension at the University of Kansas to pioneer in a field, develop an activity, and then release it when there was sufficient reason to believe that the activity could function better under a different administrative arrangement. The following activities were at one time a part of extension: (1) municipal reference bureau, now a part of bureau of government research, (2) stenographic bureau, now attached to the university press, (3) bureau of school services, now attached to the school of education, (4) post graduate medical program, now attached to the school of medicine, and (5) radio, now a separate administrative unit.

As the change in function of the audio-visual department shifts from an off-campus service to a joint campus and off-campus service and as the university grows, it is quite likely that the present administrative arrangement will not be the most satisfactory.

While the information available at this time does not seem to warrant a recommendation for an immediate change in the administrative arrangement of the audio-visual department, it is suggested that consideration be given to establishing a separate administrative unit when such a change does become necessary. It is also recommended that the close working relationship with the school of education be continued and that the activities of the library and the audio-visual department be so coordinated that materials in each may supplement the other.

The internal organization of the University of Kansas audio-visual department is shown on page 38, and, as stated, its function is to serve the needs of the campus as well as off-campus needs. The physical facilities available have to some extent shaped the organization. The photographic bureau which is physically separated from the rest of the department has not been coordinated with the campus service unit.

Units for the production of graphic materials and motion pictures should be added to this photographic bureau and the entire operation should become a part of an overall campus service.

Budget

In theory the audio-visual program should be tailored to educational need rather than to available funds.

In practice the budget has set limitations on these programs and to a great extent has determined the type of service offered.²⁵ In the beginning most of the programs were self-supported and many of them remain so today. The chief source of revenue was from rental films. The lack of financial support from the universities has to a great extent accounted for growth in the direction of off-campus services. The one most important activity at all audio-visual departments included in this study was that of renting films.

Perhaps more important than the lack of financial support by the universities was the lack of official recognition of the need for audio-visual services to the campus. Use of audio-visual material at five of the eight universities had been an outgrowth of the off-campus film rental program. Without official recognition make-shift methods of financing were adopted. In some cases departments or individuals were charged for materials, operators, and equipment. Some funds were siphoned off the film rental service to develop a campus service. At all the universities it was difficult to tell just how much was spent to provide a campus service because of the overlapping duties of personnel. At two universities the

²⁵ P. G. Reed, "A Challenging Proposal," Educational Screen, December, 1949, p. 442.

salaries of all personnel in the audio-visual department were paid from university appropriation, with materials and equipment purchased from income from the rental of materials. This amount was apparently intended to pay for all services to the campus.

In the opinion of the author these make-shift practices of financing are in general more costly and less satisfactory in the long run.

Audio-visual materials are accepted aids to instruction and learning and there is no more reason to charge departments or students for their use than to charge for the use of library books, laboratory equipment, or other instructional materials.

Although no clear-cut policy of financing the audio-visual program has been made known at the University of Kansas, the practice for the last three years has been to support the campus program with a direct appropriation whereas the off-campus program has been largely financed by income from rental films.

While it is quite easy in theory to say that the audio-visual program should be shaped to educational need rather than to available funds, in practice it becomes much more difficult. The amount of money available for audio-visual services is determined by the total amount available for the whole university. Expansion of the audio-visual services must be in keeping with the funds available.

In emphasizing the need for providing adequate financial support regularly for the audio-visual program Witt said: "An audio-visual program costs money, and a good audio-visual program costs a lot of money."²⁶

It is recommended that the present practice of appropriating funds for campus needs be continued, and that a sound policy toward financing the audio-visual program be adopted.

Physical Facilities

One of the greatest deterrents to a successful audio-visual program at six of the eight universities visited was inadequate and poorly arranged physical facilities. Only at Universities C and I could it be said that these facilities were adequate for present operations.

Most noticeable was the lack of space for the campus audio-visual activities. These activities have developed very rapidly during the last ten years; a period in which most activities at the universities were expanded due to greatly increased enrollment. Space was at a premium and new activities had to be crowded into whatever space was available.

Physical facilities for the audio-visual activities at the University of Kansas are extremely limited.

26 P. W. F. Witt, "A Yardstick for Evaluation," Educational Screen, June, 1948, p. 292.

To some extent every phase of the program has been hindered by inadequate or poorly arranged physical facilities. Expansion of the campus program will not be possible until additional space is available.

At present there are no preview rooms available for faculty or student use. The one projection room which is scheduled for classes on request is in almost continuous use. More regular classrooms must be equipped for projection to meet the requests for projected materials. Electrical outlets and dark shades or some other means of darkening the windows should be provided ultimately for every classroom.²⁷ Storage space for equipment and materials is badly needed as is space for the repair of equipment. If the services as recommended in the first part of this chapter are made available, approximately 6,000 square feet, which is about three times the space now used, will be necessary. This additional space would be used as follows: approximately 2,000 square feet (two rooms, 750 square feet each and two rooms, 250 square feet each) for production of motion pictures and graphic materials, 150 square feet (one room) for repair and maintenance of equipment, 600 square feet (6 rooms, 6 ft. x 16 ft. each) for use by students and

27 Harry C. McKown and Alvin B. Roberts, "Audio-Visual Aids to Instruction," McGraw-Hill, New York, 1949, p. 187.

faculty to preview materials, 500 square feet (one room) for an audio-visual aids laboratory, 400 square feet (two rooms, 200 square feet each) for storage, and 300 square feet (two rooms, 150 square feet each) for offices.

Usable standards for determining the amount of space necessary for an audio-visual department are not available. The above recommendation is based on observations at other universities and estimated space requirements for the services recommended.

It is suggested that the campus audio-visual center, like the general library, be located near the center of the campus, to allow for easier access by instructors and students.

Staff

The success of an audio-visual program depends to a great extent on the size and quality of the staff. According to Brumbaugh, "lack of personnel and trained staff" has been one of the greatest deterrents to the growth and development of audio-visual programs.²⁸

Kurth has stated that: "A well trained staff must be provided to perform the various services necessary to the smooth operation of the audio-visual center. The

28 William Donald Brumbaugh, "Developmental Aspects of Film Library Centers in Selected Colleges and Universities from 1942 to 1951," Doctor's Thesis, Indiana University, 1952, p. 126.

size of this staff must be sufficiently large to meet the demands placed upon it by faculty and students which are within its jurisdiction as assigned to it by the policy of the administration of the university."²⁹

In general, employees of the audio-visual department may be classified as professional or administrative, technical, and clerical.

Professional or administrative personnel includes those staff members who by reason of training and experience are eligible to teach university classes or to be in charge of the audio-visual program or separate units of the program. Directors of the programs, their assistants, and supervisors of the various phases of the operation are included in this group.

Members of the technical staff are those who perform duties largely of a mechanical nature, such as operation, repair, and maintenance of equipment.

The clerical staff is composed of those who handle routine correspondence, schedule equipment and materials, keep records and perform the other office duties necessary to the operation of the audio-visual program.

Table 2 shows that the number of employees in the audio-visual departments included in this study varied from

29 Clarence Henry Kurth, "A Survey of Audio-Visual Programs in Schools of Education of Selected Midwestern Universities," Doctor's Thesis, Indiana University, 1951, p. 36.

5 full time and 4 part time at University F to 66 full time and 50 part time at University A. Tables 4 and 5 show wide variations in the academic training and salaries of these employees.

At most of the universities some member or members of the audio-visual staff served part time on the school of education staff.

Students working on an hourly basis accounted for the majority of the part-time employees.

Almost without exception the employees of the audio-visual departments at these universities came to their jobs without specific training for the work they were to do.

Most of the professional or administrative staff were former school administrators or teachers, and a small number of the technical staff had received some training in audio-visual aids in the military service.

All universities except A reported that qualified employees for positions in the audio-visual departments were very hard to find. The practice of using graduate assistants on a part-time basis and then employing them full time upon graduation has provided a number of well-trained staff members at University A.

The audio-visual department at the University of Kansas has 10 full-time and 25 part-time employees. Of

this number 3 employees spend full time and 12 employees spend part time on the campus audio-visual program. In addition, part of the director's time and about three-fourths of the audio-visual technician's time is allotted to campus services.

As the audio-visual services to the campus are expanded to include those recommended, it will be necessary to increase the staff accordingly.

The greatest need for additional staff will occur in two areas: (1) production of materials, and (2) special service to students. Technical staff members necessary to staff graphics and motion picture production units should be added as these services are developed. To get these services started would require the addition of one full-time artist, and part-time and full-time staff members who are competent to function as producer, writer, director, cameraman, or editor.³⁰ Part-time student employees should be added as needed.

A special service so that students may have access to audio-visual materials much as they now have to reference books would require the addition of several equipment operators, which may be part-time student employees, and the addition of at least one full-time

³⁰ J. R. Winnie, "Equipment List," University Film Producers Association Journal, 1:44-45, March, 1949.

clerical employee.

Perhaps more important than the number of employees added to the audio-visual staff is the quality of these employees.

In an article entitled "How Much Does the Audio-Visual Director Need to Know?" Frasier points out that: "Audio-visual directors as a group would do well to look at librarians as a group. School librarians today are suffering from a lack of leadership that would have put them in the center of the school picture where they belong, as counselors of teachers on the use of printed materials. Librarians even yet are too largely trained as clerks and technicians, too little trained to become what they must become if they are to be hired everywhere they are needed and paid as they should be paid."³¹

Brumbaugh believes that the status of the audio-visual field is not what it might be, and that part of this may be attributed to the small number of persons holding advanced degrees.³² While a degree may be only one measure of an employee's ability, in college or university work a degree is a trademark.

31 Alexander Frazier, "How Much Does the Audio-Visual Director Need to Know?" The School Review, October, 1949, pp. 416-24.

32 William Donald Brumbaugh, "Developmental Aspects of Film Library Centers in Selected Colleges and Universities from 1942 to 1951," Doctor's Thesis, Indiana University, 1952, p. 183.

Employees of the campus audio-visual center must work directly with university faculty members. The more academic training the employee has the more likely he will be able to assist those on the instructional staff. For this reason if for no other, it is recommended that consideration be given to academic standing when employing audio-visual staff members.

Summary

The campus audio-visual program at the University of Kansas is a unit of the Bureau of Visual Instruction. Its purpose is to provide audio-visual services for the instructional program of the university.

These services have been discussed under the following headings: (1) audio-visual materials, (2) audio-visual equipment, (3) equipment operators, (4) pre-view service, (5) in-service training program, (6) special service for students, and (7) research.

At the University of Kansas audio-visual materials that may be purchased or rented, within the limitation of the budget, are provided free of charge for classroom use. A separate library of audio-visual materials for campus use has been established. Facilities for still photography are available. A centralized system of equipment distribution is in effect. Equipment and operators are provided as requested. One special projection room is

available for class use, but no preview rooms are provided for instructors or students. In-service training for instructors in the use of equipment and materials has been provided on request but an organized training program has not been established. Audio-visual facilities have not been provided for use by students. Research in the use of audio-visual aids has not been a part of the campus audio-visual program.

Specific recommendations for the improvement of the campus audio-visual services at the University of Kansas are: (1) provide facilities for the production of motion pictures and graphic materials that are needed in the instructional program but cannot be purchased or rented, (2) enlarge the campus audio-visual library, (3) add additional equipment as needed, (4) provide facilities for repair and maintenance of equipment, (5) provide a preview service for instructors and students, (6) organize an in-service training program for instructors, (7) provide an audio-visual laboratory for use by instructors and students, (8) provide a service whereby individual students may use audio-visual equipment and materials, and (9) conduct research necessary for the continued improvement of the audio-visual program.

No particular significance should be attached to the order in which these recommendations have been listed.

While it would be difficult to establish an order of importance, it is felt that the greatest need is for a service whereby audio-visual equipment and materials may be made available to individual students.

In order to provide these audio-visual services to the University, an organization with an adequate budget, an efficient staff, and well-arranged physical facilities is necessary.

An administrative arrangement whereby the campus audio-visual organization could cut across departmental lines would appear to be the most satisfactory. Consideration should be given to making the campus audio-visual organization a separate administrative unit when the necessity for a change in the administrative arrangement becomes apparent.

The best budget would be one tailored to educational need; however, the audio-visual program of necessity will have to be limited by the amount of money available. A sound policy toward financing the program should be adopted by the University and plans for expansion of services should be in keeping with this policy.

Physical facilities for the audio-visual center at the University of Kansas are extremely limited and have, perhaps more than any other factor, restricted the

operation of the program. Approximately three times the amount of space now available to the center is needed. Ultimately all classrooms should be equipped with dark shades and electrical outlets.

An efficient staff is important in the success of an audio-visual program. It is recommended that employees be carefully selected with the highest possible qualifications. Considerable attention should be given to academic training, especially for professional employees.

It is believed that the recommendations made in this chapter, if followed, will result in an improvement in the campus audio-visual program. No program, however, is in the realm of the absolute; it must continue to change and to develop as new methods of instruction and learning are discovered.

BIBLIOGRAPHY

Books and Magazines

- Allen, E. Van, "Are Universities Teaching Audio-Visually?" Educational Screen, September, 1949, p. 305.
- Allen, William, "Audio-Visual Research--A Survey Look at Past and Present," Educational Screen, November, 1951, pp. 360-1.
- Barr, H. M., "Means--Not Ends," Educational Screen, March, 1947, pp. 141-2.
- Bittman, Madeline, "The Correlating of Projected Picture Aids with Teaching," Educational Screen, December, 1947, pp. 547-8.
- Blair, Patricia, "ALA's Four-Year Film Project," Educational Screen, June, 1951, p. 222.
- Brumbaugh, William Donald, Developmental Aspects of Film Library Centers in Selected Colleges and Universities from 1942 to 1951, Doctor's Thesis, Indiana University, 1952, 221 pp.
- Carpenter, C. R. (Editor), Logistics of Sound Motion Pictures for Military Training, Special Devices Center, Port Washington, New York, September, 1952, 41 pp.
- _____, Instructional Film Research Program-Progress Report No. 13, Special Devices Center, Port Washington, New York, 1949, 53 pp.
- Chambers, M. M., Opinions on Gains for American Education from War-time Armed Services Training, American Council on Education, Washington, D.C., 1946, 79 pp.
- Chandler, Anna Curtis, and Cypher, Irene E., Audio-Visual Techniques for Enrichment of the Curriculum, Noble and Noble, New York, 1948, 252 pp.
- _____, "Check-Up for Equipment," A-V World, June, 1953, p. 354.

- Dale, Edgar, Audio-Visual Methods in Teaching, The Dryden Press, New York, 1946, 544 pp.
- _____, "World-Wide Communication the Audio-Visual Way," Educational Screen, May, 1949, pp. 205, 217.
- De Bernardis, Arno, "Care and Repair of A-V Equipment," Educational Screen, March, 1950, pp. 108-9.
- Dworkin, Sol, "University-Produced Classroom Films," Educational Screen, November, 1950, pp. 378-9.
- Erickson, Carlton W. H., "University of Connecticut A-V Center Expands," Audio-Visual Guide, April, 1953, p. 8.
- Freeman, F. N., "Some Principles on the Use of Visual Methods in Higher Education," Educational Screen, April, 1929, p. 101.
- Frazier, Alexander, "How Much Does the Audio-Visual Director Need to Know," The School Review, October, 1949, pp. 416-24.
- Fulton, W. R., "Duties of A-V Supervisor," A-V World, November, 1952, p. 644.
- Fulton, W. R., and Cross, Earl, "Oklahoma Is Ready," Educational Screen, April, 1951, pp. 138-9.
- _____, "General Practices of College Film Libraries Shown in School Report," Film World, May, 1953, p. 290.
- Gilchrist, Robert S., "A-V Specialists and Curriculum Development," Educational Screen, January, 1952, pp. 17, 30.
- Grabow, Wesley J. F., "Carting Equipment," Educational Screen, February, 1950, p. 59.
- Greene, N. L., Editorial, Educational Screen, September, 1931, p. 225.
- Guss, Carolyn, A Study of Film Evaluation and Selection Practices in Twelve Universities and Colleges with Recommendations for Improvement, Doctor's Thesis, Indiana University, 1952, 463 pp.
- _____, "How Universities Evaluate and Select Films," Educational Screen, Summer, 1953, pp. 245-6.

- Hansen, Helge E., "The University of Minnesota's Audio-Visual Service," Audio-Visual Guide, March, 1952, p. 17.
- Harcleroad, Fred, and Allen, William, Audio-Visual Administration, Wm. C. Brown Company, Dubuque, Iowa, 1951, 167 pp.
- Hoban, Charles F., Jr., Focus on Learning, American Council on Education, Washington, D.C., 1942, 172 pp.
- _____, Movies That Teach, Dryden Press, New York, 1946, 189 pp.
- Hockman, William S., Projected Visual Aids, The Pilgrim Press, Boston, 1946, 214 pp.
- Hudson, Margaret W., "Teaching Teachers Audio-Visually," Educational Screen, November, 1950, pp. 382-3.
- Hylander, C. J., "Visualizing the College Curriculum," Educational Screen, December, 1947, pp. 546, 563.
- Jensen, Herbert Roland, A Survey of Audio-Visual Activity at Columbia University and Recommendations for Its Improvement, Doctor's Thesis, Teachers College, Columbia University, 1949, 115 pp.
- Kauffman, Harry M., "Audio-Visual Programs in State Universities," Educational Screen, October, 1946, p. 442.
- Knight, Edgar W., "Today and Yesterday in Education," School Management, January, 1951, p. 3.
- Kurth, Clarence Henry, A Survey of Audio-Visual Programs in Schools of Education of Selected Midwestern Universities, Doctor's Thesis, Indiana University, 1951, 304 pp.
- Krahn, Frederic A., Educational Film Guide, The H. W. Wilson Company, New York, 1953, 1037 pp.
- Lewis, Philip, "A-V Blueprint for Chicago Teachers College," Educational Screen, February, 1952, pp. 56-7, 71.
- _____, "TV on Tape: Motion Pictures from A Magnetic Track," Educational Screen, March, 1953, p. 127.

- Lewis, Richard B., "The Tape Recorder Goes to College," Educational Screen, April, 1953, pp. 158-9, 170.
- _____, "Librarians Emphasize Need for A-V Knowledge," A-V World, May, 1952, pp. 262-3.
- _____, "Library Survey Reveals 25% Have A-V Service," Film World, December, 1953, p. 752.
- Lillywhite, Harold, "Communication in Education," Phi Delta Kappan, November, 1952, pp. 67-8.
- McAllister, Charles E., Inside the Campus, Fleming H. Revell Co., 1948, 247 pp.
- McKown, Harry C., and Roberts, Alvin B., Audio-Visual Aids to Instruction, McGraw Hill, New York, 1949, 608 pp.
- Meierhenry, Wesley C., Enriching the Curriculum Through Motion Pictures, University of Nebraska Press, Lincoln, 1952, 255 pp.
- Miles, John R., and Spain, Charles R., Audio-Visual Aids in the Armed Services, American Council on Education, Washington, D.C., 1947, 96 pp.
- Mitchell, John William, A Survey of the Motion Picture Production Activities of Selected Universities, Doctor's Thesis, Indiana University, 1952, 223 pp.
- Noel, Francis W., "A-V Leaders Must Lead," Educational Screen, March, 1953, p. 108.
- Noel, Francis Wright, and Noel, Elizabeth Goudy, "Looking Ahead Twenty-Five Years in Audio-Visual Education," Educational Screen, February, 1946, pp. 67-9.
- Offenhauser, William H., Jr., 16-MM Sound Motion Pictures, Inter-science Publishers, Inc., New York, 1949, 565 pp.
- Pratt, Lula K., "An Integrated Audio-Visual Library Service," Educational Screen, January, 1951, p. 19.
- The President's Commission on Higher Education, Higher Education for American Democracy, Harper and Brothers, New York, 1947, pp. 67-103.

- Reed, P. C., "A Challenging Proposal," Educational Screen, December, 1949, p. 442.
- Reid, Surley, "16 MM Film Libraries in the U.S.," Educational Screen, November, 1953, pp. 395-407.
- _____, "Research Project Started by Berkeley Library Staff," A-V World, November, 1952, p. 644.
- Rosenberg, Albert J., "Text-Films--New Teaching Tools," Educational Screen, December, 1947, p. 543.
- Rufswold, Margaret I., Audio-Visual School Library Service, American Library Association, Chicago, 1949, 166 pp.
- Stibitz, Mildred T., "Films in Public Libraries--Circuit Pros and Cons," Film News, Number 2, Volume 13, 1953, pp. 6-9.
- Strauss, L. Harry, and Kidd, J. R., Look, Listen and Learn, Association Press, New York, 1948, 235 pp.
- Swank, Raynard C., "Sight and Sound in the World of Books," Educational Screen, December, 1953, pp. 436-8.
- Walters, Raymond, Statistics of Attendance in American Universities and Colleges, 1952, 14 pp.
- Weaver, Gilbert G., and Bollinger, Elroy W., Visual Aids--Their Construction and Use, D. Van Nostrand Co., New York, 1949, 388 pp.
- _____, "What Does Audio-Visual Mean?", Editorial Comment, Elementary School Journal, University of Chicago, February, 1950, p. 305.
- Williams, Don G., "Universities Are Failing Students and Democracy," Educational Screen, September, 1953, pp. 297, 317.
- Witt, Paul W. F., In-service Education of Teachers in the Use of Audio-Visual Materials of Instruction, Doctor's Thesis, Teachers College, Columbia University, 1947, 99 pp.
- _____, "A Yardstick for Evaluation," Educational Screen, June, 1948, p. 293.

- Witt, Paul W. F., "A Sound Basis for A-V Planning,"
Educational Screen, January, 1952, p. 16.
- Wittich, Walter Arno, and Schuller, Charles Francis,
Audio-Visual Materials--Their Nature and Use,
Harper and Brothers, New York, 1953, 564 pp.

Catalogs and Bulletins

- Iowa State College, Catalog of Audio-Visual Materials,
1951-52, Vol. 50, No. 16.
- Bulletin--General Announcements and Faculty List,
1953-54, Vol. 51, No. 33.
- News Letter and Supplementary Catalog of Audio-
Visual Materials, February, 1953.
- Oklahoma Agriculture and Mechanical College, Catalog--
Audio-Visual Center, 1953, Vol. 49, No. 11.
- Bulletin--General Information and Announcements,
1952-53, Vol. 48, No. 31.
- Bulletin--See Hear, Division of College Extension.
- State University of Iowa, Catalog--Announcements for Year
1950-51, Series No. 1545.
- Bulletin--The Bureau of Visual Instruction, 1947.
- Catalog of Audio-Visual Materials, 1953-54.
- Bulletin--The Graphic Section, 1950.
- Bulletin--Iowa Tapes for Teaching, 1952-53.
- Bulletin--Summer Audio-Visual Workshop, July 13-17,
1953.
- Bulletin--The Use and Care of Educational Films,
1942.
- University of Indiana, Bulletin--Announcements-Curriculum-
Staff, 1953-54, Vol. 51, No. 19.

University of Indiana, Bulletin--Audio-Visual Center Report, 1951-52.

Catalog--Educational Motion Pictures, 1952, Vol. III, No. 1.

Catalog Supplement--Educational Motion Pictures, Fall, 1952, Vol. III, No. 2.

Catalog Supplement--Educational Motion Pictures, Fall, 1953, Vol. III, No. 3.

Bulletin--Services of The Audio-Visual Center (Reprint from The Indiana University Faculty Handbook, 1950).

University of Illinois, Catalog--Guide to Audio-Visual Aids, 1954-55.

Bulletin--Graduate College, 1952-54, Vol. 50, No. 8.

Bulletin--Undergraduate Study, 1953-54, Vol. 50, No. 78.

Bulletin--Audio-Visual Aids, 1952-54, Vol. 53, No. 14.

University of Kansas, Catalog of Announcement of Courses, 1951-52, Vol. 52, No. 16.

Bulletin--Audio-Visual Aids, 1952-54, Vol. 53, No. 14.

Bulletin--K.U. Film News, September, 1953, Vol. 53, No. 3.

Bulletin--Schedule of Classes, Fall, 1953.

University of Missouri, Bulletin--General Announcements, 1953-54, Vol. 54, No. 16.

Bulletin--Schedule of Courses, Fall, 1953-54.

Bulletin--Visual Education Department, 1953-55, Vol. 54, No. 42.

University of Nebraska, Bulletin--Announcements for 1952-53, Series 67, No. 14.

University of Nebraska, Catalog--Audio-Visual Materials,
1951-52, No. 180.

Bulletin--Tapes for Teaching (Bureau of Audio-
Bisual Instruction).

University of Oklahoma Bulletin--Catalog Issue, 1950-51,
Series No. 1068

Bulletin--Class Schedule, Fall, 1953, Series No.
1115.

Bulletin--Filmstrips for Campus Use, Educational
Materials Service.

Bulletin--Glass Slides, Educational Materials
Service.

Bulletin--Issue for Audio-Visual Education, 1952,
Series No. 1103.

Bulletin--Tapes for Teaching (Co-sponsor--State
Department of Education), Educational Materials
Service.

APPENDIX

INTERVIEWING GUIDE

NAME OF INSTITUTION _____

DEVELOPMENT, ORGANIZATION & ADMINISTRATION OF THE UNIVERSITY

1. When was your institution founded (year)? _____
2. Did your institution begin as a college, university, normal school, teachers' college, private school, other? _____
3. If it began as a different type institution than it is now, when did it change and for what reasons?
4. Is your school a land-grant institution?
5. Does your school have a separate governing board or are other state schools under the same board?
6. Chart or diagram the administrative arrangement within your institution.
7. What is the total enrollment at your school?
8. List the number of full time and part time teachers.
9. What is the procedure for setting up the institution's operating budget?
10. Do you have an administrative officer (or committee) in charge of allocation of office, classroom and laboratory space?
11. If not, how is space at the university allocated?
12. What is the administrative procedure for obtaining minor building alterations (darkening classrooms, installing electrical outlets, building projection stands, etc.)?
13. Who determines the content and how are new courses added to the curriculum?
14. What committee (s) or individuals determine how research funds shall be spent?

15. If possible, include catalogs giving the following information:

- (1) Names of schools and departments in each school
- (2) List of course offerings
- (3) Degree requirements
- (4) State certification requirements for teachers.

CHARACTERISTICS OF THE CAMPUS AUDIO-VISUAL PROGRAMDevelopment

1. When was the audio-visual department founded?
2. Was it established as a department by itself?
3. If not, to what administrative unit was it attached?
4. Briefly explain any organizational changes that have materially affected the audio-visual department.
5. What was the major purpose or purposes for establishing an audio-visual department?
6. Was the organizational pattern for your audio-visual department obtained from another college or university?
7. If so, what institution's pattern was followed and what major changes or modifications were necessary?
8. Did experienced personnel from another institution help in setting up your audio-visual department? How?
9. If your department was not patterned after another, trace its growth from beginning to present, under the following headings: services rendered, number of employees, physical facilities, and equipment.
10. When did your audio-visual department begin to offer services to the campus classes?
11. When was the campus audio-visual department or center established as a separate function?
12. What elements or factors caused the separation of the campus and off-campus services?
13. Was your campus audio-visual center patterned after one at another college or university?
14. If so, what changes or modifications in that pattern were necessary?
15. List the services provided by the campus audio-visual center.

16. Do you have a separate audio-visual library for use on campus only?
17. If so, include a catalog or list of all films, film-strips, slides, records and tapes that are in this library.
18. If not, do you give campus requests for audio-visual materials from the rental library preference over other requests?
19. What three year period during the past 15 years has the increase in the use of audio-visual aids on the campus been the greatest?
20. Briefly explain the growth in the use of audio-visual aids on the campus. Explain any extreme peaks or declines in the use of these aids.
21. What do you predict the trend in the use of audio-visual aids will be in the next 5 years?

Organization and Administration

1. Show by chart or diagram the line-staff arrangement from the University President down to the Director of the Campus Audio-Visual Service.
2. Chart or diagram the administrative arrangement within the campus audio-visual center.
3. Is there an audio-visual committee or council in your school? If so, indicate the number of members, from what departments they come, and their academic rank.
4. Who appoints these members and on what basis are they chosen?
5. What is the function of this committee?
6. How often does it meet?
7. What other committees or individuals (besides the president) affect or influence the development and welfare of the campus audio-visual center?
8. Is there a connection administratively or otherwise between the university library and the audio-visual center?

9. If so, briefly explain this connection, stating its function in the campus audio-visual program.
10. Is there a connection administratively or otherwise between the School of Education and the campus audio-visual center? If so, explain fully.
11. Do you believe the audio-visual program should be an administrative unit by itself?
12. If not, to what administrative unit should it be attached?

Finance

1. Explain the budgetary procedure followed by your school for the allotment of funds to the various schools and departments.
2. Do all departments operate on a fixed budget?
3. If not, explain the budget arrangement for departments that do not operate on a fixed budget.
4. In what ways do the departments operating on a fixed budget differ from those that do not?
5. What is the total audio-visual operating budget?
6. What part of this is allotted for use in the campus services program?
7. Is there a charge made for services to classes on the campus?
8. If so, what per cent of the campus audio-visual program is self-supporting?
9. If there is not a separate section for services to the campus, what per cent of the total audio-visual budget is allotted for this service?
10. What per cent of the budget for campus services comes from sale of materials such as films, slides, charts, and models?
11. What charges are made to college departments for audio-visual services?

12. What charges are made to organizations such as clubs and fraternities?
13. Do you have a policy regarding charges for services rendered by the campus audio-visual department?
14. Who determines what this policy shall be?
15. What cooperative or contractual arrangements does your department have with audio-visual departments in other institutions? What arrangement do you have with the rental film library for use of those films?
16. When films are rented from other film libraries, who pays the rental cost, your department or the college department using the film?
17. What are the categories into which the campus audio-visual funds are placed? List the amount in each fund that was available for your use during 1952-53.
18. Are the departments on the campus limited in the amount of services they can obtain from the audio-visual department?
19. If so, who sets the limits?
20. What is the basis for setting limits on departments? Funds? Hours of projection time? Number of films? Other?
21. What endowments or grants have been given to the campus audio-visual department?
22. Were these funds ear-marked for specific projects?
23. Were the funds available to the campus audio-visual department during 1952-53 adequate to provide the necessary audio-visual services?
24. If not, explain how services were curtailed to comply with funds available. Estimate the amount of money you should have had to carry on a satisfactory program.
25. Were the funds available for use by the campus audio-visual department increased or decreased for 1953-54? What per cent?

Staff

1. How many employees including the person in charge are engaged in the audio-visual department? Full time? Part time?
2. What is the average number of hours per day worked by part-time employees?
3. What college degrees do these full-time staff members hold?
4. What type of work did they do before entering the audio-visual field?
5. Are these employees under State Civil Service?
6. List the number of people making the following salaries. (Full time only, 12 months) under \$3,000 _____;
 \$3,000 to \$3,500 _____; \$3,500 to \$4,000 _____;
 \$4,000 to \$4,500 _____; \$4,500 to \$5,000 _____;
 \$5,000 to \$5,500 _____; \$5,500 to \$6,000 _____;
 over \$6,000 _____.
7. List the positions in the campus audio-visual service and give a brief description of each position.
8. List the requirements for employees in each position.
9. What is the hourly pay rate for student assistants?
10. Give the number of years experience in audio-visual work for each full-time employee. In this department _____, in other audio-visual departments _____.
11. Are full-time employees hired on a nine or twelve months basis?
12. When vacancies occur, are qualified applicants plentiful _____, usually available _____, very hard to find _____.
13. To what do you attribute your answer to question 12?
14. Do you feel that your campus audio-visual program is adequately staffed?
15. If your answer to 14 is "no," what additional positions would you suggest?

16. List the qualifications that you think the person in charge of the campus audio-visual department should have.
17. Are campus audio-visual staff members paid from funds appropriated by the university or from fees collected by the audio-visual department?

Selection of Materials

1. What individuals or combination of individuals are included in the selection of audio-visual materials (films, slides, charts, models, etc.) for purchase?
2. Who selects materials that are to be obtained on a rental basis?
3. If a committee selects audio-visual materials for purchase, how often does this committee meet?
4. How are materials selected for committee or staff appraisal?
5. If a campus-wide reviewing committee is used, who are on this committee? Who appoints them and on what basis are they selected?
6. If student evaluations are used, do these students discuss materials in classroom situations?
7. Include all types of evaluation forms used for the selection of materials.
8. If no evaluation forms are used, state in order the five most important factors in your judgment in the selection of audio-visual materials?
9. Is the method used in selection of audio-visual materials satisfactory?
10. List any suggestions for its improvement.
11. Who, in your opinion, should have the final word in the selection of audio-visual materials for purchase? Why?

12. If you believe that a committee should select audio-visual materials, who should be on this committee? Who should be chairman?
13. Do you believe that students should have a greater voice in the selection of audio-visual materials than has been the case at your school? If so, tell how you think this could be accomplished.
14. Do you believe that the method used at your school for the selection of library books could be used for the selection of audio-visual materials?
15. If so, briefly explain the procedure used.
16. If not, briefly tell why a difference in procedure should exist.
17. What assistance is given to individual teachers in the selection of audio-visual equipment or materials for use in the classroom?

Production of Materials

1. What audio-visual materials are produced by your department for use on the campus?
2. Who determines what materials shall be produced?
3. Who directs the production of these materials?
4. What audio-visual materials are produced to be sold either to departments at the university or to others?
5. Are audio-visual materials produced on the campus by departments other than yours?
6. Is the university photo-graphic bureau attached to the campus audio-visual department?
7. Do you have a film production unit? Is it part of the campus audio-visual department?
8. Are films produced for use other than at the university?
9. What per cent of the films produced are for your university use exclusively?

10. Do you contract with commercial organizations for the production of films for their use?
11. If you do not now have a film production unit, do you plan to establish one in the near future? Why or why not?
12. If you previously had a film production unit but do not have one now, what were your reasons for discontinuing it?
13. If you do not have a film production unit, do you contract with other film companies to produce films for university use?
14. Do you believe that the production of 16 mm. motion pictures is a function that should be performed by the audio-visual department?
15. If you have a film production unit, what do you consider your greatest obstacles in the production of quality films?
16. Explain any administrative connection or working relationship between the campus audio-visual department and university television station.
17. Do the same for the radio station.

Utilization of Materials

1. What department or departments are, in your estimation, making the most effective use of audio-visual materials?
2. List in order the three departments using the most 16 mm. films, filmstrips, and slides.
3. List in order the three departments using the fewest 16 mm. films, filmstrips, and slides.
4. Why do those departments listed in question 2 use more of these materials than those listed in question 3?
5. Do you supply faculty members booklets or pamphlets on the proper use of audio-visual materials?
6. Do you supply faculty members with booklets or pamphlets describing the procedure for obtaining audio-visual materials?

7. Do you furnish faculty members with up-to-date lists of audio-visual materials?
8. If so, are these lists specific for the area in which they teach or general catalogs of audio-visual materials?
9. Are faculty members informed regularly about new audio-visual materials pertaining to their work?
10. Are facilities available for faculty members to preview new audio-visual materials?
11. Are faculty members instructed in the proper use of audio-visual materials? How?
12. Are facilities available for students to see films, filmstrips and slides other than in organized classes?
13. If it were possible for you to permit individual students to see 16 mm. films of their own choosing, would you consider this proper usage of films? Why or why not?
14. What evaluation devices and/or forms are you currently using to determine the effectiveness of the audio-visual materials used by the faculty?
15. What campus-wide film programs are under the direction of the campus audio-visual directors? Briefly describe these programs.

Audio-Visual Equipment

1. Indicate in Column A the number of units of the following equipment owned by the campus audio-visual department and in Column B equipment owned by university departments.

A

B

- 16 mm. Sound Projectors
- 16 mm. Silent Projectors
- 35 mm. Filmstrip Projectors
- 2 x 2 Slide Projectors

A

B

Comb. 2 x 2 and F. S. Projectors

3½ x 4 Slide Projectors

Tape Recorders

Disc Recorders

Record Players

Opaque Projectors

Vu-Graf Projectors

Overhead Projectors

16 mm. Movie Cameras

Other Cameras

Other audio-visual Equipment

2. Do you have a centralized or decentralized system for equipment distribution? Explain how your system operates.
3. If the above arrangement is not satisfactory, suggest changes for its improvement.
4. If equipment repair is done on the campus, explain what personnel and facilities are available for this service.
5. If staff members are maintained for repairing equipment, indicate what special training they have had for this work.
6. About what per cent of equipment repair work is done on the campus?
7. Is equipment checked regularly? If so, what type of schedule is followed?
8. If repairs are made by commercial concerns off-campus, list or enclose copies of any arrangements or agreements you have with them.
9. Are you furnished with an estimate of the cost of repairs before the work is done?
10. If you have a film production unit, list the equipment available for film production.

11. Do you consider this equipment adequate for this unit? If not, what other equipment do you need?
12. If you have a tape duplicating service, what special equipment do you have for this service?
13. Do you consider the equipment you have in the campus audio-visual department adequate? If not, what should be added?
14. If tape recorders were to be standardized as to speed and single and/or double track recording, what would be your preference? What make and model of tape recorder have you found most satisfactory for classroom use?
15. If you reproduce recordings, what special equipment do you have for this service?
16. Do you have a preference as to make and/or model of 16 mm. sound projectors for use in the campus audio-visual program. What features make this a more satisfactory machine for your use?

Facilities and Housing

1. Draw a floor plan of the campus audio-visual department. Indicate booking, storage, inspection, screening and conference areas.
2. Are your physical facilities adequate for your present operation? Will they permit increase in services?
3. Has more space or do you expect more space to be allotted for your work in the near future?
4. What is the location of the campus audio-visual department in relation to the other buildings on the campus? (Enclose map of campus if available.)
5. How many buildings are on the campus that need servicing? About how many acres encompass these buildings?
6. Approximately how many classrooms are in each building?
7. Approximately how many classes meet each day during a regular semester?

8. How many classrooms are equipped (can be darkened and have electrical outlets) to project films and slides? What per cent is this of the total classrooms?
9. How often do auditorium programs require audio-visual staff services?
10. How many special projection rooms are used for instructional purposes? What per cent of projection is done in regular classrooms? In special projection rooms?
11. How many preview rooms are available for faculty and audio-visual staff use? Where are they located?
12. Are materials and/or equipment delivered to faculty members?
13. If so, what means of transporting this equipment do you have?
14. To what extent are faculty members required to pick up materials and/or equipment?
15. If materials and equipment are delivered, how often are deliveries and pick-ups made?
16. What per cent of the projection is done by operators from the audio-visual department?
17. Does the campus audio-visual department rent films and other audio-visual materials from off-campus libraries? If so, explain the procedure by which a teacher may obtain such materials.
18. Are facilities and/or materials available for teachers to prepare audio-visual aids such as charts, graphs, models and mock-ups?
19. If so, what assistance is given teachers by members of the audio-visual staff?
20. Does the system used to service the various classrooms seem to be satisfactory? If not, what suggestions do you have for its improvement?
21. Do you believe that these suggested improvements in your service would increase the amount of audio-visual materials used?

22. Do you believe that better use of audio-visual materials would be the result?
23. Describe what you think would be satisfactory physical facilities for the campus audio-visual department.
24. In what building (s) on your campus should the campus audio-visual department be housed?

In-Service Training Programs

1. What special efforts are made by the audio-visual staff to give the university teachers assistance with teaching problems regarding the use of audio-visual materials and equipment?
2. How are faculty members informed of audio-visual services available to them?
3. List any requirements, rules, regulations, or recommendations made by the university administration regarding the use of audio-visual materials.
4. Are special lectures or short courses on the use of audio-visual materials available to teachers? Is attendance required by the administration?
5. Have you or other members of your staff been invited to departmental faculty meetings to explain the use of audio-visual materials and equipment?
6. If so, is this a regular procedure or an occasional request?
7. Do you supply teachers with handbooks, pamphlets or other materials regarding good practice in the use of audio-visual materials and equipment?
8. Do you welcome teachers who seek individual help with teaching problems involving the use of audio-visual aids?
9. What is done by department heads or deans to assist teachers in the use of audio-visual materials?

10. What periodicals or books on audio-visual aids are available for use by teachers? Where are these located?
11. Do you attempt to keep teachers informed about studies and new developments in the use of audio-visual aids? How?
12. Do you keep them informed regarding new audio-visual materials in their field? How?

Research

1. Describe any research projects which have been started, partially completed, or completed at the university regarding the production, use, selection or administration of audio-visual aids.
2. Indicate the projects listed in question No. 1 that were initiated by a member or members of the audio-visual staff.
3. How were funds to carry on the projects obtained? Indicate the approximate total cost of each project.
4. What research funds are available for use by the audio-visual staff?
5. To what extent did members of the faculty participate in these research projects?
6. To what extent did graduate assistants participate in these projects?
7. List the titles of any theses or dissertations that have been completed in the audio-visual field in the past five years at your institution.
8. In what ways have research projects completed at other institutions helped in the campus audio-visual program.
9. What research projects have you planned for the future what will deal with production, use, or selection of audio-visual aids?

Future Plans

1. In what ways do you expect the services of the campus audio-visual department to be expanded?
2. What additional staff members will be needed to allow for this expansion?
3. What percentage increase in the budget will be necessary?
4. What additional space will be necessary?
5. What additional equipment will be necessary?
6. Do you anticipate changes in procedure of booking, handling, or projecting audio-visual materials? If so, explain briefly.
7. Do you expect that more classrooms will be equipped for the projection of films and slides? About how many each year?
8. Are you working in the direction of permitting individual students to view films and slides? If so, what facilities will be available for this service?
9. Do you expect a closer cooperation between the campus librarians and the audio-visual staff?
10. Briefly explain any other plans you may have for the campus audio-visual department.

ABSTRACT

CAMPUS AUDIO-VISUAL PROGRAMS
AT NINE MID-WESTERN UNIVERSITIES, 1953

Purpose and Problem

It was the purpose of this study to examine the campus audio-visual programs at the University of Kansas and eight other midwestern universities in order to get information whereby the writer could make suggestions and recommendations for the improvement of the campus audio-visual services at the University of Kansas.

To state specifically the problem was to: (1) examine the organizational and developmental patterns of the campus audio-visual programs, (2) determine the audio-visual facilities available at these universities, (3) find out what uses were made of these facilities, (4) evaluate the various aspects of these campus audio-visual programs as to their usefulness and desirability in the universities' educational programs, and (5) make suggestions and recommendations for the improvement of the campus audio-visual program at the University of Kansas.

Definitions

There are different methods of providing audio-visual services at universities, but in general these services are provided by a central organization with a staff composed of professional, technical, and clerical personnel. This

organization may have a joint purpose in that it may also provide rental materials and professional advice to schools and other organizations in the area.

Audio-visual organizations are known by various titles such as: Bureau of Audio-Visual Aids, Bureau of Visual Instruction, Visual Aids Service, and Visual Instruction Service. These titles usually denote the total audio-visual program which includes the campus and off-campus activities. That section of the organization which provides audio-visual services to the university campus is most frequently referred to as the campus audio-visual center or a-v center.

The campus audio-visual center may be a section of the larger audio-visual organization, with separate personnel and facilities, or the campus audio-visual services may be performed as a part of the total operation of the larger organizational unit. In some cases the campus a-v center has no connection administratively with the off-campus audio-visual service, each acting as a separate unit. Either or both units may be attached to a larger organizational unit within the university.

Procedure

The criteria for including institutions in this study were: (1) that they have audio-visual programs which have been in operation for a sufficient length of time to

present an established pattern, and (2) that they provide a campus audio-visual service for the university.

Other requirements, while of lesser importance, had to be considered. They were: (1) selecting institutions which had an overall educational program as much as possible like that of the University of Kansas; (2) selecting institutions within a desirable distance from the University of Kansas; (3) including some institutions that had pioneered in the audio-visual field, as well as some that had the advantage of well-established patterns to follow when setting up their audio-visual departments; and (4) selecting institutions where the audio-visual personnel was willing to cooperate by furnishing all desired information.

The institutions selected for this study were:

(A) Indiana University, (B) Illinois University, (C) Iowa State College, (D) Iowa University, (E) Kansas University, (F) Missouri University, (G) Nebraska University, (H) Oklahoma A. & M. College, and (I) Oklahoma University.

The personal interview method was used to obtain information regarding the audio-visual programs. An interviewing guide of approximately 200 questions was prepared in order to obtain complete and orderly information. The investigator spent approximately two days on the campus of each university included in the study. Approximately four hours was used for orientation and inspection of the audio-visual facilities and twelve hours

for interviewing the audio-visual director and other personnel.

Whenever possible, definite answers to questions were sought; however, qualifying statements were noted and the interviewee was given a chance to elaborate on significant aspects of his program.

Catalogs, bulletins and other material regarding each university and its audio-visual program were obtained.

Findings

The institutions included in this study are all state supported institutions and are the major schools in the states represented. All are state universities except C and H which are agriculture and mechanical arts colleges.

The enrollment at these institutions varied from 6,779 at E to 22,231 at B. The number of full-time teachers varied from 467 at I to 1,677 at B. A, C, D, and E have had an audio-visual program for about 40 years and were among the first in the United States to establish these programs. University I has had an audio-visual program for about 30 years, B 20 years, F and G 15 years, and H 10 years. All universities reported a noticeable increase in the use of audio-visual aids after World War II. A, B, D, E, H, and I reported the greatest growth in the use of these aids on the campus during the last three years.

All of these audio-visual programs began and have remained a part of the extension program, and all provide a campus and off-campus service. Four audio-visual directors stated that they were satisfied with the administrative arrangement as part of extension, two preferred a separate administrative unit, and two indicated a desire to be attached to the school of education. One thought the campus service should be a separate unit with the off-campus service remaining in extension. No director favored an administrative tie to the library.

Two types of budgets were used at all universities except F. They were: (1) a fixed budget determined by officials of the university and (2) a revolving fund budget where expenditures were governed by income. There was no budget specifically established for audio-visual purposes at F. Universities A, C, D, H, and I used the fixed type budget while B, E, and G used the revolving fund budget. Budgets ranged from \$15,000 to \$450,000, the median being \$50,000 and the average \$116,000. These audio-visual programs were very largely self-supported. Subsidies ranged from less than \$5,000 to \$125,000.

All universities, except E, asked teaching departments to pay for some audio-visual services. B and H made a charge for all services while the others charged for only part of the services.

Universities B, D, E, H, and I reported budget increases for 1953-54 over the previous year. A, C, and F reported decreased budgets for 1953-54, with no change at G.

The number of employees in the audio-visual departments ranged from 5 full-time and 4 part-time at F to 66 full-time and 50 part-time at A. Of the 160 full-time employees in all audio-visual departments, 4 had doctor's, 35 had master's, and 19 had bachelor's degrees.

All employees were employed on a 12 months basis. Very few of these employees came to the jobs they now hold with specific training for the job. Eight of the nine directors reported that qualified applicants were hard to find while one (A) reported that qualified applicants were usually available to fill vacancies.

Audio-visual materials were provided for class use at these universities in three ways. They were purchased, rented, or produced.

Practically all purchased materials were placed in the rental film libraries and made available for off-campus as well as campus use. Only E maintained a separate library for campus use. Rented materials for instructional use were obtained by all universities, but only university E provided these materials free of charge to the teaching departments.

Five audio-visual departments (A, B, D, E, and H) had units to produce materials for campus use. A and D had

units to produce films, filmstrips, slides, recordings, and graphic materials, H had a unit to produce filmstrips, slides and to a limited extent films, E had a still photography unit, and B had facilities for producing graphic materials. Universities C, F, G, and I had still and motion picture production units that were not attached to their audio-visual departments.

The final decision on materials to be purchased was made by the directors, but rented materials were selected by the instructors making the requests. Students had very little chance to voice opinions on materials that were purchased or rented, although six directors believed students' opinions regarding materials were important.

No university had facilities for all students to use audio-visual aids, although A, D, and H encouraged education students to use the facilities available.

Records to show the amount of use made of audio-visual materials on the various campuses were very difficult to interpret, and specific conclusions drawn from them would have very little accuracy. The best estimate from the figures available would indicate that less than one sound film was used each semester in each 3 semester hour course at University A, with a comparable figure of 4 each semester at University D. Other universities would appear to be somewhere between these two figures although comparable figures were not available.

A centralized system of equipment distribution was in effect at all institutions except B and F, and was the plan endorsed by all directors. A wide variation existed in the amount of equipment in the various audio-visual departments. University D had the greatest amount but even there more equipment was needed.

Equipment repair facilities were provided by the audio-visual departments at Universities D, G, and H. The physical plant departments repaired audio-visual equipment at A and B. C, E, F, and I had no facilities for the repair of equipment.

All audio-visual departments, except B, provided operators for equipment on request. Equipment operators were provided by the physical plant department at B.

Facilities for instructors to preview materials were available at all universities. University E was the only university without a special preview room.

Physical facilities for all audio-visual departments, except C and I, were inadequate and poorly arranged. Most noticeable was the lack of space for campus activities.

In-service training for instructors, in general, had been limited to providing assistance to individual teachers on request and providing catalogs and booklets describing equipment and materials available. In addition, Universities C and D had organized classes open to all

instructors on a voluntary basis. A well-equipped audio-visual laboratory was available for use by teachers and students at University D.

Research in the audio-visual field at the university level was practically non-existent in the audio-visual departments included in this study. Some research in the use of materials at the elementary and secondary level had been done but for the most part this was in cooperation with students or instructors in the schools of education. Specific funds for research had not been available to these audio-visual departments.

Three different purposes appear to have influenced the audio-visual programs in this study. They are: (1) that the primary function of the audio-visual department is to serve off-campus needs, (2) that the primary function is to serve the needs of the campus, and (3) that the training of audio-visual specialists is an integral part of the audio-visual program which campus and off-campus services should augment.

That these programs all began as departments of the extension divisions indicates that a major, if not the primary, reason for their organization was to serve off-campus needs. It appears that the audio-visual departments at Universities B, C, F, and G are still primarily concerned with serving off-campus needs and are organized and administered largely to accomplish that purpose. Universities

E and I would probably be in this category; however, recent organizational changes indicate that serving the campus needs approaches in importance that of serving off-campus needs.

Universities D and H are so organized and administered as to place the major emphasis on the campus audio-visual program.

University A stands alone in having a program which emphasizes the training of audio-visual specialists. It also places a major emphasis on serving off-campus needs. The campus service was not on par with the other two phases of this program.

Suggestions and Recommendations

The campus audio-visual center at the University of Kansas is a unit of the Bureau of Visual Instruction, which is part of University Extension. Its purpose is to provide the audio-visual services for the instructional program of the University.

Audio-visual materials that may be purchased or rented, within the limitation of the budget, are provided free of charge for classroom use. A separate library of audio-visual materials for campus use has been established. Facilities for still photography are available. A centralized system of equipment distribution is in effect. Equipment and operators are provided as requested. One

special projection room is available but no preview rooms are provided. In-service training for instructors in the use of equipment and materials has been provided on request, but an organized training program has not been established. Audio-visual facilities have not been provided for use by students. Research in the use of audio-visual aids has not been a part of the campus audio-visual program.

Specific recommendations for improvement of the campus audio-visual services at the University of Kansas are: (1) Provide a special audio-visual service for students. This service should be planned to permit students to utilize audio-visual equipment and materials with the same degree of freedom that is now associated with using books and periodicals from the library. (2) Enlarge the campus audio-visual library. This library should include films, filmstrips, slides, tapes, records and other audio-visual materials, for use by instructors and students. (3) Add additional equipment. Sound projectors and tape recorders are in the greatest demand but additional equipment of all types is needed. (4) Provide facilities for maintenance and minor repair of equipment. (5) Provide adequate preview facilities for instructors and students. (6) Provide an audio-visual laboratory for instructors and students. (7) Provide facilities for the production of motion pictures and graphic materials that are needed in the instructional program but are not otherwise available.

These facilities should be combined with the existing photographic unit and the entire operation should become a part of the campus audio-visual program. (8) Organize a group in-service audio-visual training program for instructors. (9) Conduct research necessary for the continued improvement of the audio-visual services.

In order to carry out these recommendations for the improvement of the campus audio-visual program, an organization with a trained staff, well-arranged facilities, and an adequate budget is necessary.

An administrative arrangement whereby the campus audio-visual organization could cut across departmental lines would appear to be the most satisfactory. Consideration should be given to making the campus audio-visual organization a separate administrative unit when the necessity for a change in the administrative arrangement becomes apparent.

Employees should be carefully selected and should have the highest possible qualifications. Considerable attention should be given to academic training, especially for professional employees.

Physical facilities for the audio-visual center at the University of Kansas are extremely limited and have, perhaps more than any other factor, restricted the operation of the program. Approximately three times the amount of

space now available is needed. Ultimately all classrooms should be equipped with dark shades and electrical outlets.

The best budget would be one tailored to educational need; however, the audio-visual program of necessity will have to be limited by the amount of money available. A sound policy toward financing the program should be adopted by the University and plans for expansion of services should be in keeping with this policy.