

A STUDY OF THE AUDIO-VISUAL PROGRAM OF UNIFIED SCHOOL  
DISTRICT # 378 RILEY COUNTY, KANSAS

by

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THE PROBLEM, DEFINITIONS OF TERMS USED,  
AND STUDY PROCEDURES

In July, 1965, the Elementary Schools of Riley, Keats, and Leonardville and the Riley County High School began operation as the newly Unified District #378. Previous to this each school had its own audio-visual program. Audio-visual materials and equipment remained within each school building during the 1965-1966 school year. The need for a survey to determine what audio-visual materials and equipment the Unified District owned, where they were placed within the district and to what extent they were utilized led to the study discussed in this report.

Statement of the Problem.

It was the purpose of this study (1) to determine the audio-visual equipment and materials already within the district, and the extent to which this equipment and materials were used; (2) to determine the most advantageous storage and distribution method to encourage maximum usage of the materials; (3) to list the audio-visual equipment and materials that should be purchased; (4) to determine the number of college hours in Audio-Visual Education held by teachers in Unified School District #378; and (5) to list other sources of audio-visual materials available to the district.

### Definition of Terms.

Audio-Visual Materials. For the purpose of this study audio-visual materials were defined as those teaching materials which appeal to the eye and ear, such as slides, filmstrips, motion picture film, phonograph records, models, specimens and tape recording.<sup>1</sup>

Audio-Visual Equipment. In this study audio-visual equipment was defined as those services designed to facilitate the use of audio-visual materials; such as film projectors, filmstrip and slides projectors, opaque projectors, projection screens, tape recorders, record players, overhead projectors and radios.

Training. In this study the word training was used to denote the number of college hours in the field of Audio-Visual Education held by teachers in Unified District #378.

USD #378. For this study USD #378 referred to the elementary schools of Riley, Keats, and Leonardville, and the Riley County High School.

### Study Procedures.

To accomplish this study the following procedures were employed:

1. A review of the literature on audio-visual materials and

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<sup>1</sup> Edgar Dale, Audio-Visual Methods in Teaching (Revised Edition; New York: Henry Holt and Company, Inc., 1959), p. 86.

equipment was conducted. This included a study of standards for the quantity of audio-visual materials and equipment that should be present in each school building as recommended by the Department of Audio-Visual Education, National Education Association.

2. The records available in the office of the Superintendent of Schools, Unified School District #378 were checked. The purpose of this check was to determine what audio-visual materials were listed on the inventory sheets of the previous year, and to check the transcripts of teachers employed by the district to determine the number of college hours in the field of Audio-Visual Education.

3. A personal interview with the Superintendent of Schools, Unified District #378, was conducted to determine the facilities available for a central location of Audio-Visual materials.

4. A questionnaire was sent through the office of the Superintendent of Schools, asking the teachers to list by title any audio-visual materials that had not been previously reported. The questionnaire also asked for information about utilization of materials, sources of additional materials they may have been already using, and any recommendations that they might have for improving the audio-visual program of the district.



## REVIEW OF THE LITERATURE

Millions of dollars of Federal money have been poured into the school systems of the United States. In 1965, Liston reported the results of a Trendex survey. In an editorial he reported that

The majority of teachers believe that the money can be used to best advantage by purchasing "new and additional teaching materials" and equipment. Most frequently mentioned were audio-visual aids.<sup>1</sup>

A review of the literature showed how this interest in audio-visual materials and equipment developed.

### I. HISTORICAL BACKGROUND AND DEVELOPMENT OF AUDIO-VISUAL EDUCATION

In recent years education has undergone many changes. Not the least among these changes is the advance in the use of audio-visual materials and equipment. Elwood E. Miller, of the Audio-Visual Center at Michigan State University, pointed out that there is a great deal of interest in improvement of audio-visual tools and materials in nearly every curriculum classification. Television, radio, newspapers, magazines, in fact all the communication media have done much to arouse public interest in the use of the new media in the public school.<sup>2</sup>

The idea of audio-visual education is not new. It has been

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<sup>1</sup>James M. Liston (ed.), "How Will The Money Be Spent?" Grade Teacher, LXXXII (May, 1965), 65.

<sup>2</sup>Elwood E. Miller, "Some of the Ways Audio-Visual Helps Teachers Teach," Grade Teacher, LXXXII (May, 1965), 112.

discussed with increasing frequency during the last thirty years. "For centuries before that, educators here and there proposed practices and principles which have since become accepted as part of what is today known as audio-visual instruction."<sup>1</sup>

Looking at the past serves to shed some light on the role of audio-visual instruction in today's schools.

Over three centuries ago a gifted German pastor and educator, Johann Valentin Andrea (1586-1654) wrote of an education Utopia which he called Christianopolis. He advocated at that early date universal compulsory education for both sexes and looked upon the youth as the most valuable asset of the republic.<sup>2</sup>

At this same period in history the walls of buildings both inside and out, even the walls of the cities were decorated with sculpture and paintings depicting fields of learning and the customs and laws of the people.<sup>3</sup> Campabella, an Italian writer of the same period as Andrea, "strongly emphasized sensory impressions in teaching."<sup>4</sup>

John Amos Comenius, who was a Moravian bishop in the early 1600's is credited as the founder of the modern method. He recommended that "everything should, as far as is possible, be placed before the

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<sup>1</sup> Charles F. Schuller (ed.), The School Administrator and His Audio-Visual Program (Washington, D.C.: Department of Audio-Visual Instruction National Education Association, 1954), p. 3.

<sup>2</sup> Frederick Eby, and C. F. Arrowood, The Development of Modern Education (New York: Prentice-Hall, 1946), pp. 244-245.

<sup>3</sup> Ibid., p. 245.

<sup>4</sup> Ibid.

senses...."<sup>1</sup> Politically and philosophically Comenius' ideas did not meet with favor in his time. If this had not been true, audio-visual education might have had a three century head start. He urged that:

the walls of the classroom be hung with pictures and that books should be full of them. All types of visual media such as drawings, maps, charts, diagrams, models, engravings and apparatus should be used freely.<sup>2</sup>

His ideas on education were not accepted and failed to influence education within his lifetime.

Not all the early advocates of a changed education were ignored. Jean Jacques Rousseau (1712-1778) was listened to and admired. In his most famous educational writing, Emile, Rousseau proposed a "kind of education based upon the nature and interests of the child at his particular stage of development."<sup>3</sup> In Emile, Rousseau stated, "Why not begin by showing him the object itself, so that he may know, at least, what you are talking about!"<sup>4</sup>

A review of the history of audio-visual education would not be complete without some mention of the contribution of Pestalozzi and Froebel. "Pestalozzi re-emphasized that words and language are symbols only," wrote Green and Collie, "and empty of meaning unless associated

<sup>1</sup>S. S. Laurie, John Amos Comenius (Syracuse: C. W. Bardeen, 1892), p. 197.

<sup>2</sup>Schuller, op. cit., pp. 4-5.

<sup>3</sup>Ibid., p. 5.

<sup>4</sup>William Payne, translator, Rousseau's Emile (New York: D. Appleton, 1895), p. 137.

with actual experiences. These experiences must begin with the perception of concrete objects."<sup>1</sup> Froebel, who is remembered as the originator of the kindergarten in Germany in 1837, believed that first hand observation of objects, nature and apparatus was necessary for the development of understandings.<sup>2</sup> These men and others active at this time sowed the seeds of audio-visual education.

The invention of the printing press in the fifteenth century<sup>3</sup> and the development of photography and improved engraving processes in the nineteenth century made possible the wide spread use of books and illustrations.<sup>4</sup>

Erickson listed the following significant events in the history of audio-visual education:

- 1645 - Kircher invented the Magic Lantern.
- 1870 - Bourbouze used posed motion pictures in a scientific lecture.
- 1889 - George Eastman applied for a patent on flexible photographic film.
- 1891 - Edison completed his kinetograph camera and viewer.
- 1894 - Edison started his peep show in New York.
- 1895 - The first successful screen projection in France.

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<sup>1</sup>J. A. Green and Francis Collie (eds.), Pestalozzi's Educational Writings (London: Edward Arnold, 1916), p. 293.

<sup>2</sup>Charles F. Schuller (ed.), The School Administrator and His Audio-Visual Program (Washington, D.C.: Department of Audio-Visual Instruction National Education Association, 1954), p. 7.

<sup>3</sup>Walter A. Wittich and Charles F. Schuller, Audio-Visual Materials: Their Nature and Use (New York: Harper and Brothers, 1962), p. xix.

<sup>4</sup>Harry C. McKown and Alvin B. Roberts, Audio-Visual Aids to Instruction (New York: McGraw-Hill Book Company, 1940), p. 5.

1896 - The first successful commercial screen projection.<sup>1</sup>

Edison felt that the movies had great educational possibilities.

Quoting Edison, Weir stated:

It may seem curious, but the money end of the movies never hit me the hardest. The feature that did appeal to me about the whole thing was the educational possibilities... maybe I'm wrong, but I should say that in ten years text-books as the principal medium of teaching will be as obsolete as the horses and carriages are now... Visual education-- The imparting of exact information through the motion picture will be a matter of course in all our schools.<sup>2</sup>

American education began to adopt the idea of using the object, the picture of the field study as valuable tools in the teaching process.<sup>3</sup>

As teachers began to use early visual materials, it became increasingly apparent that they needed help in locating and using them. "To provide this help," said Erickson, "both formal and informal service organizations, known as 'visual education departments' came into being."<sup>4</sup> The need for such an organization resulted in the organization in 1905, of the Saint Louis Educational Museum. This was the first administrative unit for visual education to be organized in the United States.<sup>5</sup>

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<sup>1</sup>Carlton W. H. Erickson (ed.), Administering Audio-Visual Services (New York: The Macmillan Company, 1959), p. 6.

<sup>2</sup>Harold Weir, "What Edison Would Like to Do With the Movies," Colliers, LXXV (February 28, 1925), 20.

<sup>3</sup>Erickson, loc. cit.

<sup>4</sup>Ibid., p. 8.

<sup>5</sup>F. Dean McClusky, "Problems of the Audio-Visual Administrator," Audio-Visual Administration, Fred Harclerod and William Allen (eds.), (Dubuque, Iowa: Wm. C. Brown Company, 1951), p. 7.

McClusky stated that growth came with impressive speed.

By 1923, sixteen city school systems had organized departments of visual education and similar administrative units were operating in twenty-three universities, normal schools, state museums and state departments of education.<sup>1</sup>

California, Kansas, New York, North Carolina, Oklahoma, and Pennsylvania were early leaders in establishing audio-visual departments within the State Department of Education, which were supported from public funds and served the schools in an advisory capacity.<sup>2</sup>

There has been a rapid increase in the number of districts having departments of audio-visual education. The National Education Association found that by 1954, twenty-seven percent of the school districts in the United States had formal departments. Those without the departmentalization showed a great potential for growth.<sup>3</sup>

#### 11. CURRENT TRENDS IN AUDIO-VISUAL FACILITIES

Because today's schools are charged with the task of educating an ever increasing number of students with an increasing fund of knowledge, teachers are turning for help to modern technology. This interest has been partly fostered by the increased availability of federal funds.<sup>4</sup>

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<sup>1</sup> Ibid.

<sup>2</sup> Ellsworth Charles Dent, The Audio-Visual Handbook (Chicago: Society for Visual Education, Inc., 1949), p. 7.

<sup>3</sup> National Education Association, "Audio-Visual Education in Urban School Districts, 1953-1954," Research Bulletin, XXXIII (Washington D.C.: National Education Association, 1955), p. 94.

<sup>4</sup> Raymond V. Wiman, "Setting Up Audio-Visual Programs," Midland Schools, LXXX (March-April, 1966), 58.

Wittich and Schuller pointed out that the classroom teacher of today must use all his ingenuity in an effort to keep abreast of the subject content as well as changing methods of communicating these ideas.<sup>1</sup>

Ideally, learners should have available combinations of audio-visual experiences which reinforce one another if we are to provide the most efficient paths possible for the mastery of understandings and concepts.<sup>2</sup>

Many audio-visual centers that were originally established as school museums or film libraries now contain all types of learning materials. This trend shows that audio-visual directors are increasingly aware of the need for many resources.<sup>3</sup>

Some school districts are not able to purchase all the materials and equipment that they feel is desirable. One means of solving this problem has been the formation of cooperative film libraries by two or more neighboring school systems.<sup>4</sup>

In the past the classroom teacher has relied primarily upon verbal means for the communication of ideas from teacher to pupil and pupil to teacher.<sup>5</sup> Paul R. Wendt pointed out two reasons that this may have

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<sup>1</sup>Walter Arno Wittich and Charles Frances Schuller, Audio-Visual Materials: Their Nature and Use (New York: Harper and Brothers, 1962), p. 1.

<sup>2</sup>Ibid., p. 22.

<sup>3</sup>Charles F. Schuller (ed.), The School Administrator and His Audio-Visual Program (Washington, D.C.: Department of Audio-Visual Instruction National Education Association, 1954), p. 156.

<sup>4</sup>Ibid., p. 158.

<sup>5</sup>Wittich, op. cit., p. 6.

been true. He says in part:

Incomplete teacher preparation is one reason why American schools are not making full use of all kinds of teaching materials today. A second reason is the question of cost. A survey in one state showed that 80% of the superintendents of schools believed that classroom teachers were not prepared to use audio-visual materials in the classroom. Ninety percent believed that the best way of instructing teachers in audio-visual methods would be a special course at a teacher-education institution.<sup>1</sup>

The states of Pennsylvania and California have found that a required audio-visual course has its drawbacks but that it does have the advantage of getting new methods accepted more quickly than simply allowing them to permeate education gradually.<sup>2</sup>

The schools in Albion, Michigan believed that they needed an inservice training program for teachers rather than new materials.<sup>3</sup> To facilitate inservice training one or two teachers in each building were chosen to be given instruction by the district audio-visual staff. These teachers then returned to their own buildings where they relayed the information to other teachers in special meetings or wherever the opportunity presented itself.<sup>4</sup>

It is clear that there is no one solution to providing enough

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<sup>1</sup>Paul R. Wendt, Audio-Visual Instruction (No. XIV of What Research Says to the Teacher, ed. Frank W. Hubbard; Washington, D.C.: National Education Association, 1966), p. 30.

<sup>2</sup>Ibid.

<sup>3</sup>Jan Rustenholtz, "How to Teach Teachers the Best A-V Techniques," Grade Teacher, LXXXII (May, 1965), 120-121.

<sup>4</sup>Ibid., p. 122.



adequately trained teachers. Public schools cannot wait for the development of pre-service education to catch up with the needs of the present.<sup>1</sup> Teachers use audio-visual materials and equipment in their classrooms to the degree they have been taught to do so.<sup>2</sup>

### III. AUDIO-VISUAL DEPARTMENTS IN THE INDIVIDUAL SCHOOL DISTRICT

A school system should have clearly defined objectives for the audio-visual program. Plans and evaluation procedures should be in terms of immediate, short range, and long range goals.<sup>3</sup>

A good place to begin is with an inventory of the equipment and materials that are presently available. A second step might be a survey of the physical facilities of the building or buildings.<sup>4</sup>

Long range planning must include both adaptation of older classrooms and equipment of new classrooms with adequate electrical outlets and control devices for natural and artificial light. It must also include plans for inservice teacher training and provision for an

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<sup>1</sup> Charles F. Schuller (ed.), The School Administrator and His Audio-Visual Program (Washington, D.C.: Department of Audio-Visual Instruction National Education Association, 1954), p. 299.

<sup>2</sup> Ibid., p. 276.

<sup>3</sup> Raymond V. Wiman, "Setting Up Audio-Visual Programs," Midland Schools, LXXX (March-April, 1966), 58; W. R. Fulton, Criteria Relating to Educational Media Programs in School Systems (A Report of a Study Performed Pursuant to a Contract with the United States Office of Education) (Washington D.C.: National Educational Association, 1966), p. 1.

<sup>4</sup> Raymond V. Wiman, "Setting Up Audio-Visual Programs," Midland Schools, LXXX (March-April, 1966), 58.

adequate audio-visual budget.<sup>1</sup> If the program is to progress smoothly it should have someone who is responsible for this planning and evaluation. Faris and Sherman recommend that, "the first specialist hired be an instructional materials specialist with training in both audio-visual instruction and librarianship."<sup>2</sup>

Authorities in the field were not in complete agreement as to where materials and equipment should be located. Tanzman suggested that if a school had only limited equipment it be given to one teacher.<sup>3</sup> Schuller stated that, "materials not used each day should be so located that any teacher having a need to use them can obtain them readily."<sup>4</sup> Low cost media such as filmstrips, slides and certain recorded materials should, according to Fulton, be permanently located in the buildings or classrooms where they are used.<sup>5</sup>

Regardless of where materials and equipment are located, a school system needs to establish a convenient method of scheduling the requests for materials made by teachers. It should be possible for teachers to

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<sup>1</sup> Ibid.

<sup>2</sup> Gene Faris, and Mendel Sherman, Quantitative Standards For Audio-Visual Personnel, Equipment and Materials, A Report Prepared as Part of a Study Conducted Under the Auspices of the United States Office of Education (Washington, D.C.: National Education Association), p. 5.

<sup>3</sup> Jack Tanzman, "Give Limited Equipment to One Teacher," School Management, LX (March, 1965), 52.

<sup>4</sup> Charles F. Schuller (ed.), The School Administrator and His Audio-Visual Program (Washington D.C.: Department of Audio-Visual Instruction National Education Association, 1954), pp. 22-23.

<sup>5</sup> Fulton, op. cit., p. 5.

order materials only a few days before they need them.<sup>1</sup> To facilitate the rapid distribution of media needed for specific teacher-learning situations, the school system needs some method of central classification and cataloging of materials.<sup>2</sup> Without this central system all too often materials are not available or materials that have been purchased cannot be located.

Types of catalogs will vary with the size and make-up of the school system. Regardless of the size of the school, the catalog needs to be carefully graded and systematically arranged to correlate with the course of study.<sup>3</sup>

Robert G. Harding advised those districts in which an audio-visual service is just emerging to consider the following procedure:

Plan now to prepare a printed catalog for distribution to every teacher. Detailed card catalogs are best for analysis of specific needs, but every user must come to it; it cannot be taken home, or put into the teacher's desk. Circulation of media will increase if each teacher can refer to a personal copy of the catalog.<sup>4</sup>

Leonie Brandon, Audio-Visual supervisor in the New Haven, Connecticut Schools, provided a list of equipment that is essential on a limited budget. She recommended that what ever the size of the

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<sup>1</sup>Schuller, op. cit., p. 157.

<sup>2</sup>Fulton, loc. cit.

<sup>3</sup>F. Dean McClusky, "Problems of the Audio-Visual Administrator," Audio-Visual Administration. Fred Harclerod and William Allen (eds.), (Dubuque, Iowa: Wm. C. Brown Company, 1951), p. 8.

<sup>4</sup>Robert G. Harding, "More Notes on AV Cataloging," Audio-Visual Instruction, XI (January, 1966), 46.

budget, "don't spend it all on equipment. Save a good big piece of the budget for the best audio-visual materials."<sup>1</sup>

There are not pat answers to most of the questions that arise regarding the what, when, where, why and how of an audio-visual instructional materials program. The size and complexity of any program, and the role of the audio-visual coordinator in a school or district will vary greatly, depending upon a number of factors.<sup>2</sup>

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<sup>1</sup>Leonie Brandon, "Dollar by Dollar, Here's How to Buy A-V Equipment," Grade Teacher, LXXXII (January, 1965), p. 76.

<sup>2</sup>Raymond V. Wiman, "Setting up Audio-visual Programs," Midland Schools, LXXX (March-April, 1966), 58.

## THE STUDY

Before the research proposal for this study was made, two conferences were held with the Superintendent of Unified School District #378. At these conferences the status of audio-visual materials and equipment in the Unified District was discussed. Ideas for the proposed study were exchanged. Mr. Keith Mueller, Superintendent of USD #378, offered the cooperation of his office. Following these discussions a formal proposal for this study was made and approved. A copy of the research proposal was sent to the Superintendent of USD #378.

### I. SURVEY OF EXISTING AUDIO-VISUAL MATERIALS

At the Fall Workshop held August 28-29, 1966, the teachers were asked to cooperate in making information available concerning the location and quantity of aids within the four attendance centers in the district. All teachers were given forms to use for listing materials kept in individual classrooms and not readily available. A copy of the form appears in the Appendix Section of this report. Each teacher was to list her own materials or ask that it be done. Reports prepared by individual teachers were due September 16, 1966. All this information was then combined in a catalog which was made available to every teacher in the district. Teachers were urged to make suggestions as to what they wished to be included.

Audio-visual materials were stored in libraries, principals' offices and other miscellaneous locations within the district. These materials were located and listed by the investigator. The lists were

checked whenever possible with the suppliers' catalog to determine the subject area and grade level where a particular audio-visual aid was most appropriate.

A combined listing of all audio-visual aids was then made for each attendance center. Each item was assigned a separate catalog number. This number indicated three things about that item: (1) attendance center, (2) type of aid, and (3) location within each attendance center. A copy of the key to catalog numbers appears in the Appendix section of this report.

The lists of audio-visual materials from each of the four attendance centers were combined into one comprehensive listing according to subject area. Within each subject area listing, all the available audio-visual materials were listed according to grade level. Primary, intermediate, junior and senior high school grade level divisions were made. Some materials were found to be appropriate for several levels and were given a multiple listing. Space was left to allow for the addition of new materials.

A total of 1,839 audio-visual items were included in the catalog. The Science listing was the largest with a total of 721 items. Other subject areas ranged from 230 Social Studies aids to only five available for Driver Education.

Four teachers volunteered to use one completed subject area listing. They were asked to check the listing to see if it was easily understood and to make suggestions for improvement. When this pilot listing was returned, the remaining sections of the catalog were

compiled.

The catalog included a preface by the superintendent of USD #378, an introduction explaining the purpose and organization of the catalog, a key to the catalog numbers, sample copies of the audio-visual request form, and a list of additional sources of materials that were available to all the teachers in the unified district. Copies of each of the additional source catalogs were secured and placed in the central library of each attendance center.

A copy of the complete catalog was given to each teacher at a meeting of the Unified District on April 12, 1967. A brief explanation of how to use the catalog was given at this time.

## II. DISTRIBUTION

Materials from any attendance center could be secured by an USD #378 teacher by submitting a completed request form for that aid. The requests were to be turned in to the building principal at least one week in advance of the date of anticipated use. A copy of the request form appears in the Appendix section of this report.

The four attendance centers in the district were located at a maximum distance of eighteen miles. The band director traveled to all four attendance centers each day. This appeared to be the best available method to distribute request forms and materials. Materials were returned to their original location following use by the same method.

## III. STORAGE

When the study began, materials were stored in various locations in all the attendance centers. Many were in closets or teachers' desk drawers. Raymond V. Wiman stressed this problem when he stated, "All too often there are no materials available or materials that have been purchased cannot be located."<sup>1</sup>

Following a conference about this with the Superintendent of Schools, it was decided to purchase metal audio-visual storage cabinets for each of the three elementary schools. These were placed in the central storage room of each building, where much of the audio-visual equipment was already stored. When these cabinets arrived, numbers corresponding to those in the catalog were placed on each item of audio-visual material.

Materials were stored where they were to be used most extensively. All other materials were moved to the central location in each attendance center. Teachers in each building could obtain material from this central location. Each teacher was asked to sign a clipboard giving the number of the item taken, the date signed out, and the date returned. In this way the location of any item requested by another attendance center could be quickly determined.

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<sup>1</sup>Raymond V. Wiman, "Setting Up Audio-visual Programs," Midland Schools, LXXX (March-April, 1966), 58.



## IV. EQUIPMENT

The inventory of each of the four attendance centers was checked to determine the audio-visual equipment on hand. This inventory of equipment was then compared with the quantity standards for audio-visual equipment recommended by the Department of Audio-Visual Instruction, National Education Association. These standards have also been adopted by the State Department of Audio-Visual Instruction, Topeka, Kansas.

The data in Table I shows both the equipment on hand in each of the four attendance centers and the quantity standard recommended by the NEA. The Riley attendance center failed to meet the quantity standard for the following items: filmstrip projector, microprojector, record players, transparency copy machine, projection cart, and filmstrip viewer.

The Leonardville attendance center needed filmstrip projectors, microprojectors, record players, a tape recorder, transparency copy machine, projection cart, filmstrip viewer, radio and a primary typewriter to meet the NEA standards.

The Keats attendance center failed to meet the standards for opaque projector, microprojector, record player, tape recorder, transparency copy machine, projection cart, filmstrip viewer, radio and primary typewriter.

The Riley County High School needed additional equipment as follows: filmstrip projector, overhead projector, microprojector, record player, tape recorder, and filmstrip viewer.

TABLE I

QUANTITY OF EQUIPMENT ON INVENTORY IN UNIFIED SCHOOL DISTRICT # 378  
 APRIL 1, 1967, COMPARED WITH THE QUANTITATIVE STANDARDS  
 FOR AUDIO-VISUAL EQUIPMENT OF THE DEPARTMENT OF  
 AUDIO-VISUAL INSTRUCTION, NATIONAL  
 EDUCATION ASSOCIATION

Type of equipment	Quantity standard	Number per attendance center			
		RGS	LGS	KGS	RGHS
16mm sound projector	1 per 10 classrooms	1	1	1	2
filmstrip projector	1 per 3 classrooms	2	2	2	2
opaque projector	1 per building	1	1	0	1
overhead projector	1 per 4 classrooms	3	3	1	3
microprojector	1 per building	0	0	0	0
microfilm reader	none given	0	0	0	1
controlled reader	none given	1	1	0	0
tach-X 500	none given	1	1	0	0
record player	1 per 5 classrooms 9-12 1 per classroom K-8	6	4	2	2
tape recorder	1 per 5 classrooms	2	1	0	1
transparency-copy	1 per building	0	0	0	1
wall screen	1 per classroom	11	1	0	4
projection screen portable	1 large screen for auditorium use	1	2	1	3
rear view screen	none given	0	0	0	0
projection cart	1 per portable piece of equipment	1	1	0	2
filmstrip viewer	1 per 3 classrooms	0	0	0	0
radio	1 per building	1	1	0	1
primary typewriter	1 per building	1	0	0	1

The Keats attendance center showed the greatest need for additional equipment. Although some of the other attendance centers lacked enough equipment, Keats failed to have any equipment in all but five categories.

#### V. QUESTIONNAIRE RESULTS

In March 1967, a questionnaire was distributed through the office of the Superintendent of USD #378 to the thirty-nine teachers and two principals of the district. The purpose of this questionnaire was to determine (1) present utilization of audio-visual equipment, (2) factors controlling present utilization of equipment, and (3) teacher's suggestions on how the audio-visual program of the unified district might be improved.

Teachers were asked, "Do you use any audio-visual equipment in your teaching?" The survey showed that 95 per cent of the teachers and principals were using audio-visual equipment to some extent. The other 5 per cent included a band instructor who reported no use of audio-visual equipment and a primary teacher who reported that she seldom used it.

The data with regard to the utilization of audio-visual equipment in USD #378, Riley County, Kansas, for a six week period during year 1966-1967 are presented in Table II. The movie projectors were utilized more times by more teachers than any other piece of audio-visual equipment. Each of the five movie projectors was used an average of 25.6 hours. The overhead projectors and the record players showed nearly the

TABLE II  
 NUMBER OF HOURS TEACHERS ESTIMATE THEY USE AUDIO-VISUAL  
 EQUIPMENT IN A SIX WEEK PERIOD IN USD # 378,  
 RILEY COUNTY, KANSAS, MARCH 1967

Type of equipment	Number of teachers using equipment	Total hours used
Tape Recorder	12	87
Overhead Projector	24	120
Opaque Projector	18	67
Filmstrip Projector	22	88
Microscope	7	12
Microviewer	4	12
Movie Projector	26	128
Record Player	23	127

same amount of total hours used. The fourteen record players were used an average of 9 hours per machine, and the ten overhead projectors were used an average of 12 hours per machine, for the six week period ending March 1967. Microscopes and microviewers were utilized the least, being applicable to a limited number of subject areas.

Many teachers reported that they would make more use of audio-visual equipment (1) if it were more conveniently located, (2) if carts were available on each floor to move heavy equipment, and (3) if classrooms could be adequately darkened.

Teachers in the elementary schools had more formal training in the use of audio-visual materials and equipment than those at the secondary level. A tabulation of data showed that 52 per cent of the elementary teachers had college or university training in audio-visual education while only 12½ per cent of the secondary teachers reported any formal training. Table III shows how this training was distributed. A comparison of Table II and Table III would seem to indicate that although many of the teachers did not have formal training in the use of audio-visual aids and equipment they were using the available equipment.

Table IV summarizes the problems with facilities that teachers indicated prevented maximum utilization of the existing audio-visual equipment. The two greatest problems were: lack of projection carts where needed and inability to darken a classroom sufficiently to project audio-visual materials. There were an insufficient number of conveniently placed electrical outlets in eight classrooms. Most of the

TABLE III

DISTRIBUTION OF HOURS OF COLLEGE CREDIT IN  
AUDIO-VISUAL EDUCATION, USD # 378, RILEY  
COUNTY, KANSAS, MARCH 1967

Attendance centers	Total no. of teachers	No. of teachers with college A-V credit	Ave. college credits per teacher
Keats	4	4	2.75
Leonardville	10	4	4.00
Riley County High School	16	2	2.50
Riley	11	5	3.60

TABLE IV  
 NUMBER OF TEACHERS REPORTING PROBLEMS PREVENTING OPTIMUM  
 UTILIZATION OF AUDIO-VISUAL EQUIPMENT AND  
 MATERIALS, MARCH 1967, USD # 378  
 RILEY COUNTY, KANSAS

Type of problem	Attendance center			
	Keats	Leonardville	Riley	RCHS <sup>w</sup>
Projection carts unavailable to move heavy equipment	2	4	8	3
Classroom cannot be adequately darkened	3	2	7	4
Insufficient number of conveniently placed electrical outlets	3	2	3	0
Classroom cannot be properly ventilated while materials are being projected	0	0	4	2

\*RCHS refers to the Riley County High School.

classrooms could be properly ventilated while audio-visual materials were being projected. Only four teachers at the Riley attendance center and two at the Riley County High School indicated this difficulty with their classrooms.

The teachers in the Riley, Keats, and Leonardville attendance centers expressed a need for more projection carts. This need was increased by the design of the school buildings. Several of the buildings had two or three floors. The problem of sufficient equipment was further complicated because three of the attendance centers are located in more than one building. The teachers commented in the questionnaire that they would like to have a cart for heavy equipment located on each floor, and in each separate building on the school campus.

One teacher felt that she should avail herself of the equipment now in the building, but that the problem of either moving the boys and girls or the machines often excluded the use of audio-visual equipment.

Teachers recommended that the following items be purchased or the present inventory increased to contain: combination filmstrip and phonograph with screen, all in one unit; automatic slide projector; record player; tape recorders; wall screens for individual classrooms; antenna plug-in for portable television set; 16 mm movie camera; overhead projectors; opaque projector; stereo record player; transparency copy machine; and microprojector. Transparency copy machines, tape recorders and record players were the items requested by the largest number of teachers.

Suggestions for an improved audio-visual program in USD #378



were (1) that the district have an audio-visual materials catalog, (2) that attendance centers pool lists for borrowed or rented films and strips and order as a group in late spring for the following year, (3) that each school have audio-visual equipment, and (4) that the district have one person in each building responsible for ordering films and filmstrips.

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### I. GENERAL SUMMARY

The problem in this investigation was to determine what audio-visual materials and equipment were owned by Unified District #378; where they were located; to what extent they were used; and to determine methods of improved utilization of this equipment and materials.

Literature concerning the audio-visual field was surveyed to provide a historical background for the study. The survey of the literature also provided the basis for the recommendations for change in the existing program.

The information gained in the survey of existing equipment and materials and the questionnaire results were analyzed and a complete report of the findings submitted to the Superintendent of Schools of the Unified School District #378, Riley County, Kansas.

Several changes were implemented while the study was in progress. Among these changes were provision for central storage within attendance centers of some materials, compilation of a catalog of all existing audio-visual materials, and a uniform method of distribution of requested material within the district.

### II. CONCLUSIONS

1. A survey of existing audio-visual materials in the district located 1,839 pieces of material. Some of this material had never been listed on any inventory sheet. The remainder had been previously listed

only by total number so that little was known as to types of material existing for each subject and grade level.

2. Central storage of audio-visual materials was not available in the three elementary schools.

3. There was little if any exchange of materials between teachers as few knew what other teachers had.

4. The district owned a total of eight-two pieces of audio-visual equipment. To meet the quantity standards for audio-visual equipment of the National Education Association the district needed to add an additional 30 pieces of equipment as listed in the study.

5. Formal training in the use of audio-visual materials varied considerably between the elementary and secondary teachers. Of the elementary teachers 52 per cent had college credit in audio-visual education while only 12½ per cent of the secondary teachers had any formal training.

6. Teachers reported that difficulties with equipment and facilities impeded maximum utilization of available materials. Projection carts were unavailable to move heavy equipment in seventeen classrooms. Sixteen classrooms could not be adequately darkened to project materials. Insufficient electrical outlets were cited by eight teachers. Inadequate ventilation was listed as a problem by only six teachers.

### III. RECOMMENDATIONS

After a review of the findings in this study it is recommended that:

1. A complete catalog of available audio-visual materials be developed and placed in the hands of the classroom teacher. This recommendation was implemented by the investigator as part of the research for this study.

2. An audio-visual bulletin be developed for the district. One of the functions of this bulletin would be to keep teachers up to date on new materials and their location in the district.

3. New audio-visual materials and equipment would arrive through a central office to be catalogued and numbered before distribution to each attendance center.

4. A central audio-visual card catalog be established.

5. The district consider some type of audio-visual inservice training for the teachers of USD #378. More teachers might better utilize all the materials and equipment available if they had the necessary training.<sup>1</sup>

6. Plans be made to facilitate the use of audio-visual equipment in classrooms where teachers reported it cannot now be used.

7. The district prepare a long range budget for the audio-visual program. This would include purchase of requested materials, needed equipment to meet the recommendation of the NEA quantity standards, along with the recommended room modifications.

8. Teachers be asked to help in the determination of a long

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<sup>1</sup>Robert E. De Kieffer, Audio-Visual Instruction (New York: The Center for Applied Research in Education, Inc., 1965), pp. 84-84.

range audio-visual program for the district. The audio-visual program will mean more to the teachers themselves if they are involved in the development.<sup>1</sup>

9. That the district provide means for a regular evaluation of the program.<sup>2</sup>

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<sup>1</sup>J. Harvey Littrell, In a lecture on Curriculum Development, Kansas State University, April 1967.

<sup>2</sup>De Kieffer, op. cit., p. 103.

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APPENDIX

UNIFIED SCHOOL DISTRICT # 378

Request for Audio Visual Information  
March - 1967

NAME \_\_\_\_\_ BUILDING \_\_\_\_\_  
(Please check and return to your building principal immediately.)

1. \_\_\_\_\_ Number of hours college or university credit you hold in audio-visual education.

2. Yes No Can your classroom be adequately darkened for the use of projected materials? Comments, if any.

\_\_\_\_\_

\_\_\_\_\_

3. Yes No Are there sufficient electrical outlets?

4. Yes No Can your room be properly ventilated while projected materials are being used?

5. Yes No Are projection carts available to move heavy equipment from one classroom to another?

6. Yes No Do you use any audio-visual equipment or aids in your teaching?

7. Please check those that you use and record the estimated hours of use.

___ Tape Recorder	Estimated Hours per 6 weeks	_____.
___ Overhead Projector	" " " " "	_____.
___ Opaque Projector	" " " " "	_____.
___ Film strip Proj.	" " " " "	_____.
___ Microscope	" " " " "	_____.
___ Microviewer	" " " " "	_____.
___ Movie Projector	" " " " "	_____.
___ Record Player	" " " " "	_____.

8. List audio-visual equipment which you would like to see purchased by the USD # 378.

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9. Do you have any additional comments or suggestions for an improved audio-visual program in USD # 378?

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AUDIO VISUAL MATERIALS SURVEY

TEACHER'S NAME \_\_\_\_\_ SCHOOL \_\_\_\_\_

DIRECTIONS: PLEASE FILL IN COMPLETELY AND RETURN TO YOUR BUILDING PRINCIPAL BY SEPTEMBER 16, 1966. Please list below all the Slides, Models, Filmstrips, Records, and Tapes in your school room or under your supervision. Please list the complete title and any subtitle given. Please be specific as to subject area. (Example: Science - blood) Grade Level should be listed as Primary, Intermediate, Junior High, or Senior High.

	TITLE OF AUDIO VISUAL AID or sub-title	PUBLISHER OR PRODUCER	IDENTIFYING # OR DESCRIPTION	SUBJECT AREA COVERED	GRADE LEVEL
1.	"The Sterling Silver on Your Table"	Audio Visual Associates	Se. 347	Home Economics	Sr. Hs.
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____

## Introduction

This is the first Audio-Materials Catalog for Unified School District # 378. The catalog was compiled to provide each teacher in the system with easy access to a listing of all filmstrips, records, tapes, models, microscope slides and microviewer filmstrips that are available within our district.

The catalog lists materials from all four attendance centers. They are arranged according to subject area. Within each subject area listing, materials are listed according to grade level: Primary, Intermediate, Junior High or Senior High. Some materials are listed as applicable to more than one area.

Using this list each teacher should be able to see what is available for planned units of study and obtain them from their own building or if the aid is located in another attendance center prepare and turn in two copies of a request for that aid. Requested materials will be delivered to you ahead of your request date, unless there has been a prior booking. Following the use of any aid please return it immediately so that others may use it. Please notify your building principal of any damage to any aid.

Audio-Visual Aids and Equipment are only of value if they are used.

## KEY TO CATALOG NUMBERS

Each item in the catalog has a separate catalog number. Each catalog number tells three things about that particular audio-visual aid: (1) attendance center, (2) type of aid, and (3) location within each attendance center.

ATTENDANCE CENTERS

K Keats Grade School  
 R Riley Grade School  
 L Leonardville Grade School  
 RC Riley County High School

TYPES OF AUDIO-VISUAL AIDS

FS - Filmstrip  
 T - Tape  
 RE - Record  
 MS - Microscope Slide  
 MF - Microviewer Filmstrip  
 M - Model

LOCATION WITHIN ATTENDANCE CENTER

LI - Library  
 Ag - Vo. Agriculture  
 LL - Language Lab  
 K - Kindergarten  
 M - Music Department  
 GU - Guidance

\*A single capital letter followed by a numeral denotes the drawer and compartment number of filmstrips centrally located in each attendance center

EXAMPLE: RC-FS-HE5 RC tells that this aid is located at Riley County High School; FS tells that it is a filmstrip; and HE5 tells that it is located in the Home Economics department, filmstrip #5.

Prepare two copies of each request. (2)

Unified District # 378  
Audio-Visual Materials  
Request Form

TEACHER \_\_\_\_\_ SCHOOL \_\_\_\_\_ GRADE  
OR  
SUBJECT \_\_\_\_\_

Catalog # of Item	Name of Audio-Visual Aid	Date (Give 1st & 2nd Choice)
Sample:		March 11 to March 13 or
K-FS-B6	Life on Other Planets	March 14 to March 16

PLEASE REQUEST ONLY ONE ITEM ON EACH FORM. Give the request form to your building principal well ahead of the date of anticipated use. Please give an alternate date for each request to avoid conflicts in use. Return the visual aid that has been borrowed to your building principal immediately following use. The Principal will route it back to its original location.

Unified District # 378  
Audio-Visual Materials  
Request Form

TEACHER \_\_\_\_\_ SCHOOL \_\_\_\_\_ GRADE  
OR  
SUBJECT \_\_\_\_\_

Catalog # of Item	Name of Audio-Visual Aid	Date (Give 1st & 2nd Choice)

Sources of Additional  
Audio-Visual Materials

The following sources provide listings of a variety of free or inexpensive materials for teachers. For further information contact your building principal or the Unified School District Librarian.

Educators Guide to Free Filmstrips  
Educators Progress Service  
Randolph, Wisconsin

Educators Guide to Free Films  
Educators Progress Service  
Randolph, Wisconsin

Bureau of Visual Instruction  
9 Eaily Hall  
University of Kansas  
Lawrence, Kansas

Kansas State Teachers Association  
715 W. 10th Street  
Topeka, Kansas 66612

Sources of Free & Inexpensive Materials  
Educational Division  
Field Enterprises Inc.  
Merchandise Mart Plaza  
Chicago 54, Illinois

Free and Inexpensive Learning Materials  
Division of Surveys and Field Services  
George Peabody School for Teachers  
Nashville 5, Tennessee

Office of the Riley County Superintendent of Schools  
Librarians List of Filmstrips  
Manhattan, Kansas  
(Filmstrips may be borrowed by schools in Riley County)



*Unified School District No. 378*  
*Riley County, Kansas*

SEATS GRADE SCHOOL  
Keola, Kansas  
JE 9 - 3217

LEONARDVILLE GRADE SCHOOL  
Leonardville, Kansas  
21 - 43

RILEY GRADE SCHOOL  
Riley, Kansas  
HU 5 - 2442

RILEY COUNTY HIGH SCHOOL  
Riley, Kansas  
HU 5 - 2624

April 14, 1967

Mrs. Dorothy Hanson  
Leonardville,  
Kansas 66449

Dear Mrs. Hanson:

Words cannot express my appreciation for the fine work which you have done in compiling the A-V materials catalog. It is a fine piece of work. You are to be congratulated.

Once again, thank you.

Sincerely,



Keith B. Mueller  
Superintendent of Schools

KBM/mej

A STUDY OF THE AUDIO-VISUAL PROGRAM OF UNIFIED SCHOOL  
DISTRICT # 378 RILEY COUNTY, KANSAS

by

DOROTHY JANE ARKELL HANSON

E. S., Kansas State University, 1962

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1967

The purpose of the study was to determine the existing audio-visual equipment, materials and facilities in Riley County Unified School District # 378. The district included the Keats, Leonardville and Riley elementary schools and the Riley County High School. The location, cataloging, storage and distribution of materials were investigated. This study was to serve as a basis for the development of an audio-visual program for the school district.

The investigator reviewed the literature concerning the history of audio-visual education, research in the field, and the methods of establishing an audio-visual department.

The study was conducted in two steps. Step number one involved determining just what audio-visual materials were in the four attendance centers. Teachers were asked to help by listing materials stored in their classrooms. Other materials were listed by the investigator. The lists of materials from the four attendance centers were then combined into one catalog of materials classified as to subject and grade level. Each item in the catalog was given a catalog number and a corresponding number affixed to each piece of audio-visual material. This catalog also included a listing of other sources of free or inexpensive materials. A copy of the catalog was distributed to each teacher in the unified school district. Central storage was provided in each attendance center for most materials. A system was worked out whereby materials could be requested and received by the following day from any attendance center.

The second part of the study tabulated the answers teachers gave

to a questionnaire about facilities and equipment. Teachers were given an opportunity to suggest ways the district audio-visual program could be improved. It was found that the district needed to add thirty pieces of equipment to meet the quantity standards recommended by the National Education Association. Although each attendance center had some equipment, more than one piece of some of the equipment was needed. Many teachers reported that they would make more use of audio-visual equipment (1) if it were more conveniently located, (2) if carts for heavy equipment were available on each floor, (3) if materials were conveniently located, and (4) if classrooms could be adequately darkened. Fifty-two per cent of the elementary teachers and 12½ per cent of the secondary teachers had formal training in the use of audio-visual materials and equipment.

The review of the literature and the study indicated that (1) the district should prepare plans for an audio-visual program and budget to insure cooperative effort to purchase equipment and materials needed, (2) the feasibility of some type of inservice training program for teachers be investigated, (3) a central card catalog of materials be established, and (4) the district publish a regular bulletin to inform teachers of new audio-visual materials available.

This survey of the present conditions in USD # 378 and the findings of this study are to serve only as a basis for further cooperative planning by the district faculty and administrative staff.