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A SURVEY OF AUDIO-VISUAL AID PROGRAMS IN TWENTY-THREE  
MONTANA JUNIOR HIGH SCHOOLS

by

EARL WILLIAM BRITTON

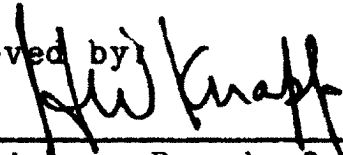
B. S. Eastern Montana College of Education, 1952


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Approved by

  
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Chairman, Board of Examiners

  
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Dean, Graduate School

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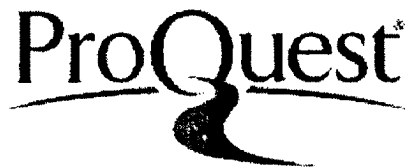


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## CHAPTER I

### THE PROBLEM AND METHODOLOGY

#### I. THE PROBLEM

Statement and importance of the problem. Contemporary educators in the United States have accepted the fact that audio-visual aids are materials necessary to the education of the child. If these aids and materials are improperly used or not available when needed to be used efficiently, the audio-visual program of any school cannot be effective. More emphasis has been put upon the use of audio-visual aids in the teaching field recently than in the past.

. . . Educators are now, more than ever before, searching for ways and means of reducing pupil failures and increasing pupil successes. . . . this changing attitude also accounts for most of the present widespread interest in the audio-visual aids.<sup>1</sup>

The main purpose of this paper is to identify any area in the field of audio-visual aids that may be in need of improvement and to submit some suggestions in terms of

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<sup>1</sup>Harry C. McKown and Alvin B. Roberts, Audio-Visual Aids to Instruction (New York and London: McGraw-Hill Book Company, Inc., 1940), p. v.



accepted theory regarding procedures and equipment items with which Montana junior high schools may be compared.

Definition of terms. Audio-visual aids, when referred to herein, will mean any equipment that projects visual material onto a screen or other surface which is capable of reflecting to the human eye the image desired. The sixteen millimeter motion picture projector, film strip projector, opaque projector, and overhead projector are examples.

The tape recorder and three-speed record player (33 1/3, 45 and 78 r. p. m.) are included in the audio portion of the definition.

Audio-visual materials include all films, pages of books, hand-drawn illustrations, maps and pictures, or any material that can be projected with the items of equipment listed under audio-visual aids above.

## II. METHODOLOGY

The sources utilized in the paper are of two types: (1) questionnaire results and (2) books, periodicals and some official publications.

The questionnaire data show the status of audio-visual programs in Montana's junior high schools. Pertinent items such as (1) administration of audio-visual aids, (2) duties

of the audio-visual director, (3) availability of audio-visual material, (4) teacher and administrator evaluation of audio-visual methods and materials, (5) equipment inventory, (6) sources of audio-visual materials, (7) materials in local school collections and (8) areas for improvement, are brought out in the questionnaires and then compared with established trends and procedures in the audio-visual field.

Two types of questionnaires were sent to the thirty-five junior high schools listed in the Montana Education Directory for 1956-57.<sup>2</sup> For the purposes of this paper, a

. . . junior high school is a public school as defined in the general school laws and is an integral unit of the public school system which comprises what is ordinarily designated as the work of the 7, 8, 9 grades of the school system and which has its own administrative head and corps of teachers under the direct supervision of the district superintendent board of trustees of the school district.<sup>3</sup>

Junior high schools that included grades seven and eight were also used in the survey when such schools were housed in a separate building or had an administrative head designated as junior high school principal. These thirty-five junior high schools ranged in school population from 24 to 1130 pupils. The number of teachers per school was one and

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<sup>2</sup>State Department of Public Instruction, Montana Education Directory for 1956-57 (Helena, Montana: State Department of Public Instruction, 1957).

<sup>3</sup>State of Montana, School Laws (Helena, Montana: State of Montana, 1953), p. 171.

one-half in the smallest and forty-seven in the largest. Of the twenty-three schools reporting, the smallest had 53 pupils and the largest had 1130. The number of teachers in the schools reporting ranged from three to forty-seven.

One questionnaire was sent to the principal or audio-visual coordinator to obtain the administrative viewpoint concerning the school's audio-visual program. The other questionnaire was sent to the teachers with the idea of obtaining teacher opinion concerning philosophy and objectives, and to ascertain actual classroom procedures in the use of audio-visual aids. On the teacher questionnaire, an attempt was made, also, to solicit opinion with regard to the effectiveness of the individual school's visual aid program.

The results of the questionnaires were both objective and subjective. The results of the subjective portion, e.g., opinions of teachers and administrators, also various individual interpretations of questionnaire items, are not as valid as the objective portion which included such items as the listing of equipment.

Twenty-three of the thirty-five schools which were sent questionnaires reported, for a 65.7 per cent return. Of these twenty-three schools returning the questionnaires, two reported that their audio-visual programs had been

discontinued and so did not answer the items of the questionnaire. One school mentioned that the program had been discontinued because of lack of classroom space, but that a few film strips were used in the science classes. The other school made no remark other than that the program had been discontinued. Of the 267 teachers in the twenty-three schools reporting, 175 answered the questionnaire for a return of 65.5 per cent. While this percentage of return in the cases of both questionnaires was adequate as a basis for conclusions, a larger percentage would have been preferable.

A further limitation upon the interpretation of this study was that some of the teachers did not answer all the items on the questionnaire.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The purpose of this chapter is to verify the importance of audio-visual aids to school instruction by reviewing briefly the history, current philosophy and trends of audio-visual aids. The book sources used in this chapter are by authors of note in the visual aids field, and the periodical articles are pertinent to the area of visual instructional materials.

#### I. HISTORICAL HIGHLIGHTS OF AUDIO-VISUAL AIDS USAGE

Audio-visual aids which are helpful supplements to sound, active teaching procedures have developed through years of evolution. "The use of pictures to teach is not new in any sense of the word. For many thousands of years, pictures have been exceedingly important in conveying impressions."<sup>4</sup> Pictures on the walls of prehistoric caves give mute evidence that man has always considered illustrative materials a necessary supplement to speech in communicating ideas.

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<sup>4</sup>Ellsworth C. Dent, The Audio-Visual Handbook (Chicago: Society for Visual Education, Inc., 1949), p. 2.

As the store of man's accumulated knowledge became greater and the machinery of society became more complex, the need for formal education increased. Certain people began to devote their time and energy to the formal instruction of youth. Concomitant with the formalization of education came the desire to improve aids to instruction.

One of the pioneer educators, Johann Amos Comenius, a Moravian bishop prepared one of the first "visualized" textbooks in existence. He called it Orbis Sensualium Pictus. Some 150 pictures made up the book, each providing a topic for a lesson.<sup>5</sup>

James S. Kinder mentions the impossibility of giving a date at which the current audio-visual movement in the United States had its beginning. The inception may have been about 1920, when the National Academy of Visual Instruction held its first national convention at the University of Wisconsin. (This organization merged with the Department of Visual Instruction of the National Educational Association in 1923) In 1922, the Visual Instruction Association was organized in New York and joined with the Department of Visual Instruction of the National Educational Association in 1932. The Department of Visual Instruction of the National Educational Association was changed in 1947 to the Department of Audio-Visual Instruction.<sup>6</sup>

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<sup>5</sup>Edgar Dale, Audio-Visual Methods in Teaching (New York: Dryden Press, Inc., 1954), p. 59.

<sup>6</sup>James S. Kinder, Audio-Visual Materials and Techniques (New York: American Book Co., 1950), p. 14.

According to F. Dean McClusky, "The term 'visual education' was conjured as a label for the use of photographic slides and 3-D stereographs in teaching." McClusky continues by stating, "By 1923 movies were an established influence; school museums at Cleveland and St. Louis had added film libraries to their slide collections."<sup>7</sup>

Today the use of audio-visual aids to instruction is common in all types of schools and at all grade levels, but much improvement in classroom procedure, organization and administration is needed. The tabulated questionnaire results, recorded later in this paper, point to these areas of malpractice.

## II. CURRENT PHILOSOPHY OF AUDIO-VISUAL AIDS USAGE

The modern educator accepts audio-visual aids as necessary to the most effective instructive methods. James S. Kinder says,

. . . the greatest sources of learning in order of greatest effectiveness are: (1) experiencing directly, (2) seeing a picture, film, . . . (3) being told about it . . . (4) reading about it.<sup>8</sup>

According to Edgar Dale, an eminent audio-visual theorist, "Audio-visual methods can help here, for there

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<sup>7</sup>Dean McClusky, "Audio-Visual, 1950-1955," Educational Screen, 34:161, April, 1955.

<sup>8</sup>Kinder, op. cit., p. 51.

seems to be something intrinsic in sensory materials that promotes an atmosphere of mutuality."<sup>9</sup> Dale also lists some of the proven contributions of audio-visual materials: (1) supply concrete basis for conceptual thinking and reduce verbalism, (2) add high degree of interest for student, (3) offer reality of experience which enhances self-activity of pupils, (4) contribute to permanence of learning, (5) develop continuity of thought, (6) contribute to growth of meaning and vocabulary development, and (7) provide vicarious experiences and contribute to the depth and variety of learning.<sup>10</sup>

Audio-visual aids create new fields of experience for pupils. As the student learns new things in terms of past, accumulated relationships, the importance of having a cosmos of varied experiences and word pictures which the teacher may utilize in inculcating new concepts into the pupil's storehouse of knowledge, becomes apparent. As no individual of public school age can have a complete background of direct experiences, creating vicarious experiences and presenting these experiences to the learner is an important job of educators. Words of which a person has no definite visual concept are referred to as verbalisms. Dale lists some terms which have been confused in various classrooms,

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<sup>9</sup>Dale, op. cit., p. 7.

<sup>10</sup>Ibid., p. 65.



"Lead us not into Penn Station," "Christian Sex," "Alcatraz is a large ocean-going bird," "The equator is a menagerie lion running around the equator."<sup>11</sup> Audio-visual aids enhance instructional methods to a great extent in alleviating these verbalisms. "In the first place, visual aids provide for the learner a concrete picture of the situation in question. How many erroneous ideas have their roots in verbalisms?"<sup>12</sup> asks Ella Callista Clark.

Retention and interest are also greatly aided with the proper use of audio-visual aids. Ella Clark also says, "Rulon's study, for instance, showed a retention superiority of 38 per cent for the group using visual aids,"<sup>13</sup> when compared with a group not using the visual aids. As a person has lived, he has learned, and in learning that person can not fail to grasp the realization that learning is facilitated by interest in the potential concept with which he has come in contact and assimilated into his working knowledge. "Modern educators agree that interest is intrinsic and that where interest is high, associated and concomitant learnings are high,"<sup>14</sup> remarks Ella Clark.

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<sup>11</sup>Dale, op. cit., p. 24.

<sup>12</sup>Ella Callista Clark, The Use of Visual Aids in Teaching (Winona, Minnesota: State Teachers College, 1938), p. 4.

<sup>13</sup>Ibid., p. 5.

<sup>14</sup>Ibid., p. 5.

Powers makes this statement concerning the use of audio-visual aids, "The children in our school are enthusiastic about them and feel that they have a lot of teaching value, besides making studies exciting."<sup>15</sup> Powers gave some recorded comments concerning pupil reactions to audio-visual aids. Various pupils made statements to the effect that filmstrips pointed out the facts better than books. The pupils found that pictures presented discussion at various points, and that filmstrips allowed the pupil to see interesting, colorful pictures while reading. Concerning the tape recorder, one pupil said he was able to speak better and clearer and at the same time have fun.<sup>16</sup>

Many other valid reasons for using audio-visual aids in the classroom could be given. Among these reasons is the help aids give in the amelioration of the different backgrounds of children coming from various home environments. J. Murray Lee says that teachers gain their objectives for good teaching only through the expressed needs of the children with whom they are working. Proper choice of film and projected material enhances the chances of realizing these objectives.<sup>17</sup> The junior high school age lends itself quite

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<sup>15</sup>Merrill E. Powers, "Here's What the Children Say," Audio-Visual Guide, 22:25, January, 1956.

<sup>16</sup>Ibid.

<sup>17</sup>W. H. Erickson and J. Murray Lee, "Why Did You Use That Film," Audio-Visual Instruction, 1:134, October, 1956.

aptly to the use of audio-visual aids. This age is a transition period in the pupil's life. The junior high school serves an age when the child is searching for new fields of interest in which to express himself. The pupil is in need of many new experiences which will facilitate movement from childhood to the adult way of life. Smith, Standley and Hughes have this to say:

Because the junior-high school age naturally is one of ever-expanding interests and widening horizons there is a need to introduce pupils to many new objects, relationships, and processes in ways that build true meaningful concepts. For this reason, the wide use of all types of objective aids is highly essential in junior high school education. When objective aids are viewed as realistic symbols selected so as to contribute to pupil understandings through meaningful experiences, it becomes apparent that no one type of aid could possibly serve all instructional needs. It is therefore important for all junior high teachers to be familiar with all types of objective aids that may serve the varied systems to systematize and make available to teachers as wide a variety of objective aids as may be possible within the limitations of the community.<sup>18</sup>

### III. CURRENT AUDIO-VISUAL TRENDS

#### Current practice in audio-visual administration.

With the importance audio-visual programs are occupying in public school curricula, some type of direction should be given to the coordination of the audio-visual aids programs in all schools. Paul C. Reed says, "Audio-visual materials

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<sup>18</sup>Maurice M. Smith, L. L. Standley and C. L. Hughes, Junior High School Education (New York: McGraw-Hill, 1942), p. 288.

are being considered side by side with printed materials and both become the concern of an expanded department of instructional materials."<sup>19</sup> According to Reed, all progressive systems have a specialist to coordinate the total audio-visual aids program and also a teacher appointed to coordinate the programs in the individual schools.<sup>20</sup> The audio-visual coordinator serves as a liaison between teacher and students in the school to which he is assigned. In some of the smaller school systems a classroom teacher may be given released time from teaching duties or an extra stipend for directing the audio-visual program in a school. Possibly, the principal or superintendent may head the program.

Fred Winston, in the N.E.A. Journal, makes the following statement:

No classroom teacher is able to keep informed about all the new materials in his area, nor has he time to locate, order and prepare materials or to arrange for equipment and operators. Therefore an audio-visual coordinator is necessary to assist teachers in locating, ordering, preparing, and presenting materials.<sup>21</sup>

However necessary an audio-visual coordinator is, his presence on the professional scene does not excuse the

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<sup>19</sup>Paul C. Reed, "How Special is Audio-Visual?" Education, 75:323, June, 1955.

<sup>20</sup>Ibid.

<sup>21</sup>Fred Winston, "Student Service Corps for the Audio-Visual Program," N.E.A. Journal, 45:25, January, 1956.

teacher from responsibilities to the audio-visual program. According to R. W. Rendell, the final selection of materials and their use depends upon the teacher, but the coordinator can help the teacher to realize the effectiveness of instructional materials to the learning situation.<sup>22</sup>

With the increasing cognizance of educators concerning the audio-visual coordinator 's place in the school program, a person is needed on every staff to devote part of the school day to audio-visual direction. N.E.A.'s Department of Audio-Visual Instruction recommends a ratio of one full-time coordinator to eight hundred students, or a time allotment of ten minutes per day with each faculty member.<sup>23</sup> James Kinder states that "both large and small school systems and individual buildings in larger systems need an audio-visual director."<sup>24</sup>

F. H. Bachman has set forth the following list of purposes and functions of the director of audio-visual aids:

1. Maintain central library of instructional materials.
2. Maintain equipment in working order.
3. Maintain repair department with necessary parts for equipment.
4. Distribute and circulate audio-visual materials.

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<sup>22</sup>J. W. Rendell, "Leadership Role of Educational Materials Specialist," Educational Leadership, 12:429, April, 1955.

<sup>23</sup>Winston, loc. cit.

<sup>24</sup>Kinder, op. cit., pp. 541-542.

5. Keep up to date files of available audio-visual aids, know what is on the market.
6. Maintain current inventory of materials and equipment.
7. Provide for demonstrations of materials and equipment.
8. Discuss with and aid faculties on use of aids in the classroom (Inservice program).
9. Teach operation, care, and maintenance of equipment to individual teachers.
10. Demonstrate use of aids in individual teacher's classrooms.
11. Suggest uses of local resources for the school program.
12. Suggest aids for specific curriculum offerings.
13. Keep all professional employees of the school district informed as to all newly acquired aids.
14. Provide instructional materials for pupils when needed.
15. Aid in preparation of slides, films, recordings and other school-made aids.
16. Procure materials by rental and loan from outside sources and make available a wide variety of aids, equipment and services.
17. Aid principals and teachers in the preparation of the annual budget concerning audio-visual aids.
18. Keep informed on current practices in this field of education.
19. Maintain membership in educational bodies and attend important conferences and conventions.
20. Through proper publicity, interpret to the public the need and use of audio-visual aids in the education program.
21. Demonstrate the use of audio-visual aids to P.T.A. and other community groups.
22. Cooperate with the superintendents, principals, and teachers in curriculum improvement.
23. Evaluate the audio-visual program.
24. Conduct research on phases of the local program of curricular offerings.<sup>25</sup>

Planning is necessary to have visual instructional materials at one's fingertips. Dent says, "the success of

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<sup>25</sup>F. H. Bachman, "Purposes and Functions of the Director of Audio-Visual Aids," Audio-Visual Guide, 22:31, February, 1956.

an audio-visual program depends to a great extent on the ease with which these aids\* may be obtained."<sup>26</sup>

Financing the audio-visual program. A good school program of any sort has as its first prerequisite financial support to adequately insure its material success. Dent says that the audio-visual program should receive financial support commensurate with its importance. The allowances should be drawn up on cooperation of teachers with the audio-visual director.<sup>27</sup> Dent continues with the statement:

An annual budgetary allowance should provide for: an adequate staff, maintenance of equipment and materials, planned programs of equipping existing buildings--one per cent of the annual per-pupil cost is suggested as a minimum operating figure for the audio-visual program.<sup>28</sup>

Kathleen Moon, in writing about the Fulton County, Georgia school audio-visual program says,

. . . the fund is furnished on a matching basis by the State Department of Education and part by the Fulton County Board of Education. In some instances the school, through the budget of the P.T.A., shares in the purchase of the material.<sup>29</sup>

Kinder says that when a group of audio-visual coordinators were asked what they considered it might cost per

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<sup>26</sup>Ellsworth C. Dent, The Audio-Visual Handbook (Chicago: Society for Visual Education, Inc., 1949), p. 188.

<sup>27</sup>Ibid.

<sup>28</sup>Ibid.

<sup>29</sup>Kathleen Moon, "It Takes Planning to Have Materials at Your Fingertips," Nation's Schools, 53:87, February, 1954.

pupil to finance an audio-visual program, they replied \$1.00 to \$1.50 for materials alone. Kinder also mentions that at a national meeting of the Department of Audio-Visual Instruction of the N.E.A. in 1950, a panel discussion of audio-visual budgets brought out the fact that a minimum program would cost \$50 per teacher and a good one \$150.<sup>30</sup>

Objectives and evaluation. The following statement is made by DeKieffer and Cochran and applies to the teaching field in its entirety.

To teach means to evaluate, constantly to check the students' development in terms of skills, knowledges, and abilities, and the use of this information as it applies to their lives and living. Evaluation also implies the constant search for more effective methods and materials with which to communicate with students.<sup>31</sup>

If this quotation is accepted to be true, the use of audio-visual aids is necessarily influenced by the statement, because these aids are an integral part of teaching. Audio-visual aids, to be used effectively, must be used within a framework of carefully planned and organized objectives, units of study and evaluations. The materials selected to aid the dissemination of any academic information must be carefully previewed, classified and the records filed. One

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<sup>30</sup>Kinder, op. cit., p. 554.

<sup>31</sup>Robert DeKieffer and Lee W. Cochran, Manual of Audio-Visual Techniques (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1955), p. 11.



writer expresses the belief that the selection and evaluation of audio-visual materials becomes easier and more effective when the teacher is cognizant of the need to appraise materials in terms of the particular medium of communication which they represent.<sup>32</sup> However, not all audio-visual material, to be effective, need be didactic. Many types of information can be presented in an informal, entertaining fashion. J. Murray Lee says the teacher should seek only objectives which are most important to his own situation and these in terms of the boys and girls whom he teaches.<sup>33</sup> Lee goes on to say, "there is but one valid and professional reference point for choosing films (and all other audio-visual materials) namely: the specific and indentifiable, valid teaching objectives."<sup>34</sup>

After objectives have been established and the audio-visual materials chosen and filed which will best aid the presentation of the anticipated unit of study, planning is necessary to apply these materials effectively. Edgar Dale mentions that in order to make effective use of audio-visual materials, the members of a class must know not only why

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<sup>32</sup>Robert E. Schreiber, "More Effective Selection and Evaluation of Audio-Visual Materials," School Science and Math, 55:479, June, 1955.

<sup>33</sup>Erickson and Lee, op. cit., p. 134.

<sup>34</sup>Ibid.

they are looking and listening, but also what they are looking and listening for. Dale also states that no teacher can know what the pupils should look and listen for unless the instructor has previewed the materials.<sup>35</sup>

Dale gives a simple and brief outline of audio-visual presentation procedure: (1) previewing, (2) effective timing, (3) tying experiences together, and (4) review (as many times as necessary to reach the objective, provided the material will be more rewarding than other materials).<sup>36</sup>

Inadequate planning in the audio-visual field is a result of erroneous thinking. Mistakes are made if teachers assume that audio-visual aids can be administered disregarding sound, correlated teaching procedures. In some cases, films have been used as the sole means to an educational end. If used in this manner, the period in which the materials were used could be referred to as "film day" (an entertainment or relaxation period for the teacher and students). One writer in the field says that "loose thinking about the reasons for putting films to work in the classroom is the number one killer of effective film methods."<sup>37</sup> Dent makes the statement that "visual materials will not

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<sup>35</sup>Dale, *op. cit.*, p. 73.

<sup>36</sup>*Ibid.*, pp. 74-76.

<sup>37</sup>Erickson and Lee, *op. cit.*, p. 135.

supplant the textbook or teacher, but will supplement and increase the effectiveness of the teacher and text."<sup>38</sup> Dent goes on to say that merely exposing the child to visual material will not teach him; teachers must prepare in advance for the visual lesson.<sup>39</sup>

Before records or synopsis of audio-visual aids are filed for further reference, a comprehensive evaluation should be conveniently tabulated to show where each aid might fit into units of study in future years. Edgar Dale has presented some evaluating criteria for audio-visual materials: (1) Do they give a true picture of the ideas they present? (2) Do they contribute meaningful content to the topic under study? (3) Are the materials appropriate for the age, intelligence, and experience of the learner? (4) Is the physical condition of the materials satisfactory? (5) Is there a teacher's guide? (6) Is the material worth the time and money and effort? (7) Do they tend to improve human relations?<sup>40</sup>

The audio-visual coordinator should make a thorough evaluation of the content of projected instructional aids used within the school system. However, each teacher should also keep a simple evaluation of materials applicable to the

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<sup>39</sup>Ibid.

<sup>40</sup>Dale, op. cit., p. 85.

subject and grade level which he teaches. Concerning materials which will be used again, Dale says the materials are for the teachers to utilize, and the teachers will use these aids effectively when instructors examine the materials with critical awareness of what the aids can and cannot do.<sup>41</sup>

Audio-visual room facilities. If an audio-visual program is to be fully effective, the physical condition of the room in which the aids are being used should be the best circumstances allow. To be most effective the program should be conducted in each individual classroom. This arrangement eliminates the upsetting of the class in order to move to another room. This movement marks a definite transition of thought and physical movement when best results are achieved in a program in which the audio-visual aids can be integrated into and correlated with the learning process at hand. Hollis A. Moore, Jr. says, "After all, the classroom is the place where teacher and pupil have established rapport."<sup>42</sup> Mr. Moore adds that to have the audio-visual room separate from the classroom is poor practice.<sup>43</sup>

Marsh's statement that "the climate in a classroom

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<sup>41</sup>Dale, op. cit., p. 85.

<sup>42</sup>Hollis A. Moore, Jr., "Adequate Audio-Visual Facilities in the Classrooms," Nation's Schools, 55:67, May, 1955.

<sup>43</sup>Ibid.

can have disastrous results upon the effectiveness of the materials presented,"<sup>44</sup> should be part of the audio-visual understanding of every teacher and administrator. Rooms must have ventilation, the lighting and seating arrangement must provide opportunity for all pupils to see and hear well. "Today, studies of the relationship between thermal environment and learning efficiency have given temperature--and all it implies--new meaning and prestige."<sup>45</sup> Kinder mentions that absolute darkness is not necessary; that ventilation is more important than total darkness, because a class that goes to sleep or is uncomfortable will not profit from instruction.<sup>46</sup>

Teacher training. Audio-visual aids to instruction can be compared to any other feature of the instructional program in that teachers do need some instruction in the use of such aids. Ellsworth Dent says that the importance of pre- and in-service training of teachers should be recognized.<sup>47</sup> Continuing this train of thought, Bealer Smotherman has this to say:

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<sup>44</sup>Zephrin A. Marsh, "An Audio-Visual Climate," Audio-Visual Instruction, 1:178, November, 1956.

<sup>45</sup>Ibid.

<sup>46</sup>James S. Kinder, Audio-Visual Materials and Techniques (New York: American Book Company, 1950), p. 518.

<sup>47</sup>Dent, op. cit., p. 188.

We can't go far in curriculum improvement until teachers understand the types and uses of the many resources now becoming available to them. Learning more about audio-visual materials and their effective use is rapidly becoming an essential part of teacher preparation.<sup>48</sup>

According to Dent, a teacher training institution should offer: (1) courses which teach the use of audio-visual materials as well as techniques of using the aids, (2) courses for administrators, supervisors, curriculum directors, and guidance personnel which include materials on the principles and techniques of using audio-visual aids, and (3) courses for training audio-visual specialists.<sup>49</sup> James Kinder mentions that specific demonstration lessons can be given in various buildings during the regular school day.<sup>50</sup>

#### IV. EQUIPMENT STANDARDS AND BASIC EQUIPMENT

Equipment standards. According to Moore, audio-visual education is a field that has defied definition. Probably no field has been established where there are fewer standards.<sup>51</sup> Kinder has noted some standards for minimum audio-visual needs originally published by the Committee on Visual Aids of the American Council of Education:

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<sup>48</sup>Bealer Smotherman, "Training Teachers to Use Audio-Visual Resources," Nation's Schools, 56:74, August, 1956.

<sup>49</sup>Dent, loc. cit.

<sup>50</sup>Kinder, op. cit., p. 559.

<sup>51</sup>Moore, op. cit., p. 69.

1. One 16 mm. sound projector for every 200 students.
2. One filmstrip projector for every 200 students.
3. One 2 x 2 projector for every 400 students.
4. One 3½ x 4 projector for every 400 students.
5. One opaque projector for each school.
6. One two-speed, portable, sixteen-inch transcription player, complete with speaker, for each 200 students, or one per building where enrollment is under 200.
7. One wire or tape magnetic recorder per building.<sup>52</sup>

During a meeting of the National Audio-Visual Association in Chicago in 1956, the following audio-visual equipment recommendations were made:

1. One 16 mm. projector per 300 students.
2. One filmstrip and 2 x 2 projector per 200 students.
3. One opaque projector per building.
4. Two three-speed record players per building.
5. One tape recorder per 300 pupils or at least one for each building.
6. One overhead projector (7 x 7) per building.<sup>53</sup>

Basic equipment. When any new equipment is purchased, whether to replace obsolete equipment or to make new additions to the supply on hand, the administrator or the audio-visual coordinator should have some definite criteria for selection in terms of new types of machines which will do the job better than the older ones. Perhaps through the school's committee on audio-visual aids, which represents the teachers, suggestions may come from the people who will

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<sup>52</sup>Kinder, op. cit., p. 544.

<sup>53</sup>State Department of Public Instruction, "Audio-Visual Equipment Recommendations," Montanagram, Vol. V, No. 2 (Helena, Montana: State Department of Public Instruction, October 1, 1956).

be working with the machines.

Among the basic audio-visual equipment that all schools should have is the 16 mm. sound motion picture machine. Kinder tells us that "the motion picture, as such, is a patent medium of education, children even of the age of eight see half the facts in a picture and remember them."<sup>54</sup>

Overhead projectors are also very good items of equipment, especially to project simple sketches and drawings which are made extemporaneously during classes. Plastic shapes and liquids can also be projected with this machine, according to DeKieffer and Cochran.<sup>55</sup>

The opaque projector can be quite effectively utilized in the classroom. Pages of books or pictures can be shown to a number of pupils at one showing. Pupils can make use of this projector to illustrate their individual reports. DeKieffer and Cochran say,

Every teacher has, at some time or another, wished she had some means of enlarging and projecting a small picture for class observation. Materials for the opaque projector are numerous. Pictures from texts, flat pictures, photographs, post cards, children's drawings or written materials and certain kinds of small objects can all be projected and studied by the entire class.<sup>56</sup>

A tape recorder is a very efficient means of

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<sup>54</sup>Kinder, op. cit., p. 255.

<sup>55</sup>DeKieffer and Cochran, op. cit., p. 112.

<sup>56</sup>Ibid., p. 118.



reproducing discussions, debates or speeches in English classes. This reproduction of the pupil's voice makes it possible for the pupil to detect errors in tone, grammar, and inflection in his own voice. Some use is now being made of pre-recorded tape recordings. Colorado State College, Greeley, Colorado, Kent University in Ohio, and the University of Illinois at Champaign have pre-recorded tape libraries.<sup>57</sup> Russell Steen, Montana's State Audio-Visual Director, lists some advisable procedures in the use of pre-recorded tapes. "Select the recording to contribute specifically to what the class is studying and avoid choosing an excessive amount for any class period."<sup>58</sup>

A three-speed transcription player should be provided in every school because so many records are now being produced in 78, 45, and 33 1/3 r.p.m. sizes. Records can easily be played in individual classrooms and can be very effective in a classroom presentation. As one author says,

Records, perhaps more than any other aid, have helped to bring realism to the social studies class.

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<sup>57</sup>Lecture by Dr. Henry W. Knapp, Montana State University, 1956.

<sup>58</sup>Russell Steen, "Tape Recording," Montana Education, 33:2, September, 1956.

For example, the recording [a dramatization] of the election of 1800 led the pupils to understand that the politician of today is just a twentieth century variety of the fellow in Jefferson's time.<sup>59</sup>

Dale says that recordings are to the ear what pictures are to the eye.<sup>60</sup>

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<sup>59</sup>Leo Tarutz, "The Roxbury High Plan for Using Audio-Visual Aids in Social Studies," Clearing House, 29:526, May, 1955.

<sup>60</sup>Dale, op. cit., p. 297.

## CHAPTER III

### STATUS OF AUDIO-VISUAL PRACTICE IN MONTANA JUNIOR HIGH SCHOOLS

#### I. AUDIO-VISUAL ADMINISTRATION

With the importance audio-visual programs are occupying on the agenda of school curricula practices, apparently some type of direction should be given to the coordination of the audio-visual programs in all schools. Also, if teachers are to derive optimum benefits from these instructional aids, these teachers must have some idea of how to effectively utilize the aids, either through training or effective direction.

The data with regard to school audio-visual coordination in Montana junior high schools are presented in Tables I and II. Table I illustrates the number of teacher responses in terms of the position of the person who is responsible for the audio-visual equipment in the various schools. Apparently, the majority of junior high school teachers can let this duty rest in the hands of an audio-visual coordinator. This conclusion seems incongruous with the data shown in Table II, which presents the fact that of the twenty schools reporting, only nine have

TABLE I

PERSON RESPONSIBLE FOR AUDIO-VISUAL PROGRAM  
as reported by the teachers' questionnaire

Position of person	Times reported	Questionnaires returned
Audio-visual director	89	
Principal	37	
Teacher	28	
Total reporting	154	175

TABLE II

NUMBER OF SCHOOLS HAVING AUDIO-VISUAL DIRECTOR AND  
TIME ALLOTTED FOR COORDINATION  
as reported by administrators

Time allowed	As reported by administrators	Number of teachers reporting in respective schools
Full time	3	64
Half time	2	38
Less than half time	4	24
None	11	22
Total reporting	20	148*

\*Eight teachers reported audio-visual direction in contradiction to the administrators report causing the variance in totals reported in Tables I and II.

audio-visual directors. However, the nine junior high schools having an audio-visual director are the larger schools in the state, with teaching staffs as large as forty-seven members, while many of the junior high schools not having a director are the schools with as few as two teachers in the junior high school. Thus, the statistics shown on these two tables are actually compatible.

Even though Table II, page 31, shows that only nine out of twenty schools have an official audio-visual director, the statistics reported in Table III indicate that unofficial assistance is rendered to teachers in some of the other schools reporting.

TABLE III  
DUTIES OF AUDIO-VISUAL DIRECTOR IN JUNIOR HIGH SCHOOLS  
as shown in administrator's questionnaire

Duties	Official	Unofficial
Supervise selection of materials for purchase and addition to program	9	2
Inform teachers about available materials	9	6
Assist in providing audio-visual facilities (film, machines, etc.)	9	5
Provide for distribution of materials to teachers when needed	13	
Help teachers make good use of materials	10	

According to the data shown on Table IV, few teachers are dissatisfied with the availability of audio-visual materials. The majority appear to feel that materials can be obtained when needed.

TABLE IV  
AVAILABILITY OF AUDIO-VISUAL AIDS AND MATERIALS  
as reported on teachers' questionnaire

	Usually	Sometimes	Seldom
Able to obtain materials when desired	129	23	5
Equipment available when needed	119	35	15

Current literature in the field of audio-visual administration points out the fact that all schools need an audio-visual director. The director, in the larger schools may be on a full-time basis; in the smaller schools, the principal or superintendent may direct the audio-visual program. Possibly, a classroom teacher may be given released time from routine duties in schools which are not large enough to justify a full-time audio-visual director.

Financing the audio-visual programs in Montana.

The various school audio-visual budgets are shown in Table V. The school population is listed, showing the comparison

to the amount of money per student. Seven administrators replied that they had no actual budget. The budget per pupil ranged from \$.25 to \$4.00 in the nine schools answering this item on the questionnaire, with an average per-pupil budget of \$1.32.

TABLE V  
SCHOOL AUDIO-VISUAL BUDGETS  
from administrator's questionnaire

School population	Audio-visual budget per pupil
972	\$0.60
936	0.75
431	1.00
351	1.00
221	0.75
140	2.00
114	1.50
108	0.25
60	4.00

Current literature on financing the school audio-visual program shows that an audio-visual budget is necessary in order to maintain a successful audio-visual program. Such things as a staff, equipment, and maintenance of equipment and supplies should be considered in sound audio-visual budgeting. One author stated that \$1.00 to \$1.50 per pupil should be allocated, on an audio-visual budget, for materials alone.

## II. AUDIO-VISUAL EVALUATION AND OBJECTIVES

The results of the items on the questionnaire regarding good audio-visual practice are shown in Tables VI and VII. Table VI was constructed from the results of the questionnaire sent to the junior high school teachers. The majority of the teachers feel that good audio-visual practices are carried out and the teachers who do not believe good audio-visual practices are used, for the most part, state that a good program could not be carried on due to lack of physical facilities.

TABLE VI

TEACHER IMPLEMENTATION OF AUDIO-VISUAL PRACTICE  
as reported by teachers' questionnaire

Teacher audio-visual practice	Yes	No	Sometimes
Prepare for use of material through preview	91	48	28
Establish objectives before materials are used	109	38	6
Insure good room ventilation and that each pupil can see and hear well	138	21	8
Prepare introductory questions or statements prior to showing	94	41	29
Pre-discussion of material	137	25	11
Correlate materials with curriculum procedures	109	21	30



Table VII shows the viewpoint of administrators or audio-visual directors with regard to their part in carrying on an effective program. All of the administrators feel that the teachers are provided with listings of material, which should enhance the initial planning of the year's program. Most of the administrators feel that the teachers have adequate time to preview and show films properly, but only one-half of this group think the teachers have time to reshow the films. Twenty per cent of the schools have audio-visual committees to help plan the whole school program.

Table VIII, page 38, shows the data on teachers' evaluation of audio-visual material. In the answers to the items included on this portion of the questionnaire, most of the teachers answered that a general evaluation of material is made. The majority of teachers reply that the materials are checked for currency of content, authenticity, and whether or not the material falls within the limitations of the age group for which the aid is intended. Many of the instructors note that, to enhance the effectiveness of these aids, follow-up use is made of questions and discussions, while field trips, demonstrations and art work are used to a lesser extent.

One of the factors insuring a good audio-visual

TABLE VII

ADMINISTRATION FACILITATION OF GOOD AUDIO-VISUAL PRACTICE  
from administrators' questionnaire

Administration audio-visual practice	Yes	No	Sometimes
Teachers provided with catalogs and listings of available materials	20		
Teachers informed in advance of showing whether requested materials will be delivered when needed	12	5	3
Materials provided to teachers for sufficient periods of time to permit:			
Previews	15	4	1
Proper showing	15	4	1
Reshowing	10	10	
Provide equipment and materials to facilitate teacher and pupil production of films, slides, and records or tapes	11	9	
Have committee to assist in formulation of plans and policy for program	4	13	

TABLE VIII

TEACHER EVALUATION OF AUDIO-VISUAL METHODS AND MATERIALS  
from teachers' questionnaire

Teacher audio-visual practice	Yes	No	Sometimes
General evaluation of material	94	62	9
Measure whether material presents what it purports to present	95	50	8
Material checked for currency of content	102	41	3
Ascertain whether materials designated for certain age group falls within the interests and knowledge of that group	126	28	
Keep a simple evaluation file for future use	96	64	5
Follow material with:			
Questions	150	4	
Discussion	155	1	
Field trip	13	115	4
Demonstration or re-showing	40	90	
Creative art work	18	130	

program is teacher use of the available equipment and materials in a school. According to the administrators' questionnaire, fourteen administrators are satisfied that their teachers make regular use of the audio-visual aids and six are not satisfied on this item.

Chapter II of this paper presents some of the principles by authorities in the audio-visual field, concerning objectives for and evaluation of audio-visual material. The authors point out that teachers must have a definite objective established regarding what the pupils are expected to gain through the use of audio-visual aids. The objectives can be achieved only through preview of the actual material the teacher is going to present. Table VI, page 35, shows that the greater share of teachers report that they do preview audio-visual materials.

The related literature points out that teachers should always be concerned with the correlation of audio-visual material which is used and the content of the subject being taught. An effort is made to correlate the audio-visual materials with curriculum procedure on the part of Montana junior high school teachers, as evidenced by Table VI, page 35.

Teacher training in audio-visual methods. Of the teachers reporting on the item pertaining to whether or not they have any preparation in the field of audio-visual

instruction, 104 answered "none," and 71 answered "some." The 71 reported from one to six quarter hours per teacher.

On the question dealing with whether books and magazines on audio-visual aids were in the school's professional library, ninety-three said that some were on hand, twenty-eight said there were none, and twenty-five stated they did not know if such books were available. Of interest here is the observation that of the teachers' replies to the question, many varying answers of "yes" and "no" came from the same school.

Authors dealing with audio-visual teacher training definitely state that teachers should have formal training in the use of audio-visual aids. College training should be offered to both teachers and administrators and much value can be gained through in-service training in the use of audio-visual equipment and materials.

## CHAPTER IV

### STATUS OF AUDIO-VISUAL EQUIPMENT, LIBRARIES, AND ROOM FACILITIES IN MONTANA JUNIOR HIGH SCHOOLS

#### I. STATUS OF AUDIO-VISUAL EQUIPMENT

One of the items included in the questionnaire which was sent to the teachers, listed six pieces of audio-visual equipment--16 mm. sound motion picture projector, opaque projector, overhead projector, 2 x 2 slide and film strip projector, three-speed record player, and tape recorder. The teachers were asked to note the types of equipment and number of each belonging to their school. The 16 mm. sound motion picture machine was the only item of equipment which most of the teachers agreed that their school owned.

Table IX shows the various items of equipment that administrators and audio-visual directors listed in response to the questionnaire for administrators. Of the seventeen schools reporting on the equipment inventory, three junior high schools in one city shared the same equipment. These three schools were combined in the table to show the ratio of enrollment to equipment.

In relation to the National Audio-Visual Association's

TABLE IX  
EQUIPMENT INVENTORY  
from administrators' questionnaire

School popu- lation	Number of items of equipment					
	16 mm. sound motion picture projec- tor	2 x 2 slide and film projec- tor	Opaque projec- tor	Over- head projec- tor	3 speed record player	Tape record- er
2414*	7	11	4	3	1	9
1130	3	2			5	1
431	3	2	1	1	3	1
351	1	2	1			
302	1	1	1			
292	2	1			1	1
221	1	2			1	1
170	1	1**			1	
140	2	2	1		4	2
132	2	2	2		1	1
117	1	1				1
115	1	1			1	1
114	2	3			1	1
60	1	1	1			1
60	1	2	1	1	2	1
53	1			2		
***	2	1	1		2	1

\*Combination of three junior high school enrollments in one city.

\*\*Projector is shared with high school.

\*\*\*No school population recorded in Montana Education Directory.

basic equipment standards,<sup>61</sup> fifteen of the seventeen schools possessed an adequate number of 16 mm. projectors (one for every 300 students) per student. Twelve of the seventeen schools possessed an adequate number of slide and filmstrip projectors (one per 200 pupils) and one of the smaller schools had no filmstrip projector. Only two schools had a sufficient number of opaque projectors (one per building) and eight did not have this type of projector. Only four of the schools reporting had a sufficient number of overhead projectors (one per building) and thirteen had none. Six of the seventeen schools had the proper number of tape recorders (one per building) and the remaining four had no tape recorders.

### III. STATUS OF AUDIO-VISUAL LIBRARIES

Libraries. The school population of the various schools which answered the items regarding local school collections of materials is shown in Table X, with the number of films, filmstrips, recordings, and slides owned by each school. Only fifteen of the twenty schools returning the questionnaire owned materials. The remaining five

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<sup>61</sup>State Department of Public Instruction, "Audio-Visual Equipment Recommendations," Montanagram, Vol. V, No. 2 (Helena, Montana: State Department of Public Instruction, October 1, 1956).



were not included in the table. Six of the twenty schools owned sound films, and fifteen owned filmstrips. Eleven of the twenty schools owned recordings and only one owned slides.

TABLE X  
AUDIO-VISUAL MATERIALS IN LOCAL SCHOOL COLLECTIONS  
as reported by administrators

School population	Number of items			
	Sound films	Film strips	Recordings	Slides
1130	400*	700		
972	20	2800	15	500
936	22	2800	12	
506	22	2860	20	
431		450	70	
351	36	531	64	
302		100		
292		50	100	
221		120		
170		50	20	
140	80	500	250	
132		200	500	
115		10		
114		300	150	
60		75	20	

Audio-visual materials sources. The sources of audio-visual materials are shown in Table XI. All twenty of the schools which answered this item in the questionnaire made use of the Montana State Film Library at Helena for the 16 mm. films. Fourteen other sources of materials

were listed. Of these fourteen sources, only six were listed twice by any of the various schools and eight were listed only once as being used as material sources.

TABLE XI  
SOURCES OF AUDIO-VISUAL MATERIALS  
as reported by administrators' questionnaire

Sources	Number of schools using
<b>Commercial films</b>	
Montana State Film Library	20
Indiana State Film Library	1
North Dakota State Film Library	1
Brigham Young University	2
<b>Free films</b>	
Free Films*	2
Associated Films	2
Modern Films	2
General Electric Corporation	1
American Petroleum Company	1
Shell Oil Company	2
Rarig Films (Seattle)	2
Ford Company	1
U. S. Forest Service	1
Deseret Films (Salt Lake City)	1
Akin and Bagshaw (Denver)	1

\*Name of producer not given

### III. AUDIO-VISUAL ROOM FACILITIES

Of the twenty schools reporting on whether or not they had darkening facilities in the classrooms seventeen answered in the affirmative. Fifteen schools reported that they made use of the auditorium or a central projection room also. Three of the fifteen schools used the central projection room exclusively.

When asked whether the pupils could see and hear well, 138 teachers said that they could. Fifty of the teachers who answered "yes" to the question noted also that this was to the best of their ability, and that the arrangement of the physical plant made the maintenance of a good audio-visual climate difficult. Writers dealing with the physical conditions of audio-visual rooms state as a principle that the films and other materials should be used in the classroom where the teachers and pupils have established rapport. Every teacher should insure, to the best of her ability, that the pupils are able to see and hear well. Room ventilation, however, is as important to good audio-visual learning conditions as the ability of the pupils to see and hear, because pupils who go to sleep cannot learn.

## CHAPTER V

### MONTANA JUNIOR HIGH SCHOOL OPINIONS ON AUDIO-VISUAL PROGRAMS AND THEORY

This chapter attempts to express both administrator and teacher opinions with regard to the audio-visual programs in the various schools. Ideas on the worth of various facets of audio-visual programs in terms of total curriculum procedures are expressed by both administrators and teachers. Also, some suggestions on junior high school audio-visual needs are listed.

Teacher opinion. The majority of teachers seem to feel that audio-visual aids definitely promote good teaching procedures. Table XII, page 48, illustrates that the educators believed in the use of visual aids as a means to supplement the teacher's efforts in pupil instruction.

Table XIII, page 48, shows that most of the teachers represented in the questionnaire are not satisfied with the status of their individual school audio-visual programs although they did feel that the program enhanced their total instructional program.

One section of the teachers' questionnaire was devoted to areas for improvement of the audio-visual program in general. Table XIV shows that less than half of the

TABLE XII

TEACHER OPINION REGARDING AUDIO-VISUAL THEORY  
as reported on teachers' questionnaire

Audio-visual precepts	Teacher response		
	Yes	No	Not sure
Audio-visual material properly used will help teach more in less time	145	17	7
Pupils having advantage of audio-visual aids will remember more, longer	135	13	10
Pupils show more interest in things they can see, hear, touch and make	153	4	4

TABLE XIII

TEACHER OPINION ON INDIVIDUAL AUDIO-VISUAL SCHOOL PROGRAMS  
as reported on teachers' questionnaire

Opinion	Yes	No	Hope so	Some-times	Don't know	Maybe
Audio-visual program in school enhances instructional program	126	23		6		2
Audio-visual program will improve in the future	136	6	12		19	2
Satisfied with present program	50	117				

TABLE XIV

AREAS FOR IMPROVEMENT IN VARIOUS AUDIO-VISUAL PROGRAMS  
as reported on teachers' questionnaire

Areas	Yes responses*
Audio-visual material could be more relevant to subject matter taught	69
Better coordination between State Film Library and local program desired	77
Films more functionally used; less used as items of entertainment	67
Financing of program needs to be increased	70
More time could be devoted to direction of local program	53

\*Out of 175 questionnaires returned

teachers responded to each of the items listed. The largest number of responses were registered in terms of the need for better coordination between the State Film Library and the local program. The need for increased finances was also noted. The smallest number of responses was given to the request for more time to be devoted to direction of the audio-visual program within the individual schools. Apparently, most of the teachers felt that the phases of their programs listed in this portion of the questionnaire needed little improvement, as evidenced by the fact that the largest number of those who voiced dissatisfaction in any of the areas was only 77 out of the 175 teachers who returned the questionnaire.

Administrator opinion. Fourteen administrators felt that their audio-visual program was unsatisfactory as compared to six who were satisfied. Thirteen of the twenty administrators who responded to the portion of the questionnaire concerning the number of items of equipment in their schools were dissatisfied. The items listed which junior high school administrators felt were needed included: (1) slide film projectors, (2) 16 mm. projectors, (3) three speed record players and tape recorders, and (4) overhead projectors and tachistoscope. Eight administrators stated the need for at least one of the forementioned items of equipment.

On the section of the questionnaire which provided for additional remarks the following statements were noted by the administrators: (1) three stated more time should be given to direction and scheduling of program by coordinator, (2) two needed more and better films, also an increased budget, (3) one stated that the films were not previewed by teachers due to indolence and five mentioned that films were not available for a long enough period of time which resulted in improper preparation and follow up on the part of teachers, and (4) one could not get films from the Montana State Film Library when desired.

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## CHAPTER VI

### CONCLUSIONS

The use of audio-visual aids to instruction was definitely accepted among Montana's junior high school teachers and administrators as a "must." According to the results of the questionnaire, more teachers felt that they were able to make effective use of various audio-visual materials than those who did not. Most of the teachers felt that materials were accessible when needed for the most effective use. However, some of the teachers felt that due to lack of coordination at the local and state level the materials were inaccessible and, consequently, improperly used and ineffective.

In order to participate in an effective audio-visual program, teachers needed some type of training in the use of audio-visual aids and definite objectives established to facilitate the visual aids theory.

In responding to individual items, most of the teachers expressed satisfaction with audio-visual direction, availability of materials and ability to correlate materials with the curriculum.<sup>62</sup> However, on the overall evaluation of individual programs, 70.1 per cent of the teachers stated

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<sup>62</sup>See Table XIV, p. 49.

a general dissatisfaction.<sup>63</sup>

Primarily, the audio-visual programs needed a budget upon which to operate efficiently. This budget should anticipate and provide for adequate materials and equipment which the school can use to properly carry on a sound visual aids program.

The audio-visual programs in Montana seemed to be in need of established budgets for those schools that did not possess one and an increased budget for those schools which had lower than the budget of \$1.00 to \$1.50 per pupil suggested by Kinder.<sup>64</sup> According to Table V, page 34, nine schools of the twenty reporting had no budgets and of the nine which reported a per pupil budget, four were below that recommended in 1950 by Kinder.<sup>65</sup>

A good school audio-visual program definitely needs some type of direction and coordination to integrate theory with practicability. If the school is large enough a full time director is justified; the smaller schools can well use a teacher who has extra time from routine class duties to devote to program coordination.

More audio-visual directors are needed in the Montana

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<sup>63</sup>See Table XIII, p. 48.

<sup>64</sup>See p. 16.

<sup>65</sup>Ibid.

junior high schools. Of the twenty administrators reporting, only nine indicated any type of audio-visual director.<sup>66</sup> Even though most of the teachers felt satisfied as to audio-visual direction,<sup>67</sup> a possibility exists that the laissez faire attitude has pervaded their thinking and resulted in the idea that "if we don't have a director, less work will need to be done."

The junior high school teachers of Montana believe in the utility of audio-visual aids as a supplement to good teaching practice. Those teachers who are dissatisfied with their individual school's visual aids program feel that it will improve in the future.<sup>68</sup>

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<sup>66</sup>See Table II, p. 31.

<sup>67</sup>Ibid.

<sup>68</sup>See Table XIII, p. 48.

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## **APPEND IX**

MONTANA STATE UNIVERSITY

MISSOULA

SCHOOL OF EDUCATION

Dear Junior High School Principal:

One of our graduate students, Mr. Earl Britton of St. Ignatius, is making a survey of the use of audio-visual equipment and materials in the junior high schools in Montana. The enclosed questionnaires are being sent to all 7-8 and 7-8-9 systems in the state which have principals (as designated by the Montana Educational Directory).

Two types of questionnaires are included. One form is to get the administrative viewpoint on this portion of the total school program. (This may be delegated to your school's visual aids coordinator, if he is in a better position to answer the questions than the principal). The second form hopes to get the classroom teacher viewpoint toward usage of these instructional materials. Mr. Britton is enclosing as many of these questionnaires as the number of teachers indicated for your junior high school in the Montana Educational Directory.

Any cooperation which your school can give in this project will be greatly appreciated.

Sincerely,



Henry Knapp  
School of Education

St. Ignatius, Montana

Dear fellow teacher:

I know that this is a busy time of year for all school people, but I would appreciate it if you could spare a few minutes to fill out the enclosed questionnaire concerning the audio-visual program in your school. Under the direction of Dr. Henry Knapp of the School of Education, Montana State University, I am making a survey of the audio-visual aids programs in all Montana junior high schools in conjunction with work toward a M.E. degree from M.S.U.

Most of the questions may be answered in an objective fashion. Naturally, all replies will be confidential; neither schools nor teachers will be identified in the results of the survey. Your signature is not necessary on the questionnaire, but may be added if you desire.

I hope the answering of this questionnaire will not be too much of an imposition on your busy spring teaching schedule. A self-addressed stamped envelope is enclosed for your convenience.

Sincerely,



Earl Wm. Britton

QUESTIONNAIRE  
FOR JUNIOR HIGH SCHOOL ADMINISTRATORS

1. Name of junior high school \_\_\_\_\_
2. Person making out report \_\_\_\_\_ Title \_\_\_\_\_
3. Does your school system have an audio-visual education supervisor? \_\_\_\_\_ Full time \_\_\_ half time \_\_\_  
less than half time \_\_\_\_\_
4. If the above does not apply, do you have a classroom teacher who serves as coordinator? \_\_\_\_\_  
Does he have released time for these duties? \_\_\_\_\_  
Name of audio-visual coordinator in building \_\_\_\_\_
5. Does this person perform the following services:  
Supervise selection of materials for purchase and addition to your audio-visual department? \_\_\_\_\_  
Inform teachers about available materials? \_\_\_\_\_  
Assist in providing audio-visual facilities? \_\_\_\_\_  
Provide for distribution of materials to teachers when needed? \_\_\_\_\_  
Help teachers to make good use of materials? \_\_\_\_\_  
Other (specify): \_\_\_\_\_
6. Does you school have a committee to assist in formulating plans and policy for the development and operation of the audio-visual program in your school? \_\_\_\_\_
7. Do you have a local collection of audio-visual materials available for your junior high school use? \_\_\_\_\_  
If so, please show:  
Approximate number of films available \_\_\_\_\_  
Approximate number of film strips available \_\_\_\_\_  
Approximate number of recordings available \_\_\_\_\_  
Other (specify): \_\_\_\_\_
8. Aside from your local supply, what sources do you make use of for obtaining audio-visual materials:  
Montana State Film Library? \_\_\_\_\_ To what extent? \_\_\_\_\_  
Other State Film Libraries: \_\_\_\_\_

Commercial Agencies:

9. Does your school provide equipment and materials so that teachers and pupils may help in producing audio-visual materials (such as cameras, film, slide-making materials, and tape recordings)? \_\_\_\_\_  
If so, list some examples: \_\_\_\_\_
10. Do teachers have ready access to catalogs and listings of available materials? \_\_\_\_\_
11. Are teachers informed in advance whether requested materials will be delivered to them when needed? \_\_\_\_\_
12. Are such materials provided to teachers for sufficient periods of time to permit: previews? \_\_\_\_\_  
Proper showing? \_\_\_\_\_ reshewing? \_\_\_\_\_
13. What provision is made for equipment maintenance?
14. Who operates equipment? Principal \_\_\_\_\_ Teachers \_\_\_\_\_  
Custodian \_\_\_\_\_ Students \_\_\_\_\_
15. Which proves the most satisfactory operating personnel?
16. What is your audio-visual budget allowance per student?
17. What approximate proportion of your total materials budget (books and other teaching aids) is allocated for audio-visual materials and equipment? \_\_\_\_\_
18. Equipment inventory:
- |   | Make  | <u>16 mm. projectors</u><br>(specify if silent) | Wattage | Approx. age |
|---|-------|---|---------|-------------|
| A | _____ | _____   | _____   | _____       |
| B | _____ | _____   | _____   | _____       |
| C | _____ | _____   | _____   | _____       |
| D | _____ | _____   | _____   | _____       |
| E | _____ | _____   | _____   | _____       |
- 2 x 2 slide and filmstrip projectors
- |   |       |       |       |
|---|-------|-------|-------|
| A | _____ | _____ | _____ |
| B | _____ | _____ | _____ |
| C | _____ | _____ | _____ |
| D | _____ | _____ | _____ |

opaque projectors

A	_____	_____	_____
B	_____	_____	_____
C	_____	_____	_____

overhead projectors

A	_____	_____	_____
B	_____	_____	_____
C	_____	_____	_____

three-speed record and transcription players

	Make	Approx. age
A	_____	_____
B	_____	_____
C	_____	_____

tape recorders

A	_____	_____
B	_____	_____
C	_____	_____

19. When showing films and slides, do you use:  
central projection room? \_\_\_\_\_  
classrooms with darkening facilities? \_\_\_\_\_  
auditorium? \_\_\_\_\_
20. Do you use: Movable screens? \_\_\_\_\_  
Stationary screens? \_\_\_\_\_
21. Do you feel that you have sufficient items of equipment  
so that teachers have them available when needed? \_\_\_\_  
If not, what items of equipment would you like to add  
if the budget permitted? \_\_\_\_\_
22. Do you feel that classes in your school make regular use  
of the available equipment and materials? \_\_\_\_\_
23. Do you feel that your audio-visual program is conducted  
in a manner which you personally think is satisfactory?

Comments:

QUESTIONNAIRE FOR TEACHERS  
(Junior High School)

1. Name of school \_\_\_\_\_
2. Who is responsible for audio-visual equipment in your school? \_\_\_\_\_
3. Do you select your own audio-visual materials? \_\_\_\_\_  
Are you able to obtain materials when you want them?  
usually \_\_\_\_\_ occasionally \_\_\_\_\_ seldom \_\_\_\_\_  
Do you have access to a film catalog? \_\_\_\_\_ State \_\_\_\_\_  
Film Library catalog? \_\_\_\_\_ Others? \_\_\_\_\_
4. Do you feel that the equipment and materials you use for your classroom presentations are readily available when you need them? \_\_\_\_\_
5. Is the following equipment available in your school:
  - a. sound motion picture projector \_\_\_\_\_
  - b. filmstrip and slide projector \_\_\_\_\_
  - c. three-speed record and transcription player \_\_\_\_\_
  - d. tape recorder \_\_\_\_\_
  - e. opaque projector \_\_\_\_\_
  - f. overhead projector \_\_\_\_\_
6. What other audio-visual materials do you use in the classroom?
7. Do you make regular use of modern pictures, slides, film strips and motion pictures to supplement your classroom procedures? \_\_\_\_\_
8. Do you make use of student operators when showing film materials and slides? \_\_\_\_\_
9. Do you prepare yourself for the use of audio-visual materials through previewing and evaluation? \_\_\_\_\_
10. Is there any concerted effort to evaluate the audio-visual materials you receive? \_\_\_\_\_
11. Is there an attempt to measure whether the material presents what the title and annotation imply? \_\_\_\_\_  
Is material checked for currency of content? \_\_\_\_\_

Is there an attempt to ascertain whether the materials designated for a certain age group falls within the interests and knowledge of that group? \_\_\_\_\_

12. Do you keep a simple evaluation of films and other materials you use for future reference? \_\_\_\_\_
13. Do you make it a practice to establish objectives for seeing the film before it is shown in class? \_\_\_\_\_
14. Do you insure good room ventilation and make sure that each pupil can see and hear well? \_\_\_\_\_
15. Do you prepare introductory questions or statements before showing a film? \_\_\_\_\_
16. Do you have discussion about what the group will see when this seems the best method to introduce material ?  
\_\_\_\_\_
17. After presentation of material do you follow up with:  
Questions \_\_\_\_\_  
Discussions \_\_\_\_\_  
Field trips \_\_\_\_\_  
Demonstration or re-showing \_\_\_\_\_  
Creative art work \_\_\_\_\_  
Any other type of activity which will lend real value to the lesson \_\_\_\_\_ If so, mention such activities:
18. Have you had a course in audio-visual instruction? \_\_\_\_\_  
If so, how many quarter or semester hours? \_\_\_\_\_
19. Are there books and magazines dealing with audio-visual material and instruction in your school's professional library? \_\_\_\_\_
20. Do you believe:  
That audio-visual material, properly used, will help you to teach more in less time? \_\_\_\_\_  
That pupils having had the advantage of audio-visual materials will remember more information for a longer time than those who have not? \_\_\_\_\_  
That pupils will show more interest in things that they can see, hear, touch and make? \_\_\_\_\_
21. Are you able to correlate the audio-visual materials on hand with your curriculum procedures? \_\_\_\_\_



22. In which subject do you feel your audio-visual program aids the most? \_\_\_\_\_
23. Do you think the audio-visual program in your school really enhances your instructional program? \_\_\_\_\_
24. Do you think the audio-visual aids program will improve in the future? \_\_\_\_\_
25. Are you satisfied with your present audio-visual program? \_\_\_\_\_
26. If you think your audio-visual program could be improved, note the areas for improvement:

Audio-visual materials could be more relevant to subject matter taught? \_\_\_\_\_

There could be better coordination between the State Film Library and the local program to provide the films desired when needed? \_\_\_\_\_

Films could be more functionally used, less used as items of entertainment? \_\_\_\_\_

Financing of the audio-visual program could be increased to place better quantity and variety of materials in your school? \_\_\_\_\_

More time could be given to the direction of audio-visual program within your system \_\_\_\_\_

What suggestions might you make to improve your own school's audio-visual program: \_\_\_\_\_