1957

A development plan for an audio-visual program in the public schools of Cumberland.

Burns, Christina R.

Boston University

http://hdl.handle.net/2144/11252

Boston University
A DEVELOPMENT PLAN FOR AN AUDIO-VISUAL PROGRAM
IN THE PUBLIC SCHOOLS OF CUMBERLAND

A Thesis
Presented to
The School of Education
Boston University

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Christina R. Burns
August 1957
TABLE OF CONTENTS

CHAPTER                       PAGE

I. THE PROBLEM                1
   Statement of the problem   1
   Definition of terms        1
   Scope of the study         1
   Plan of the study          2
   Justification of the problem 3

II. REVIEW OF PAST LITERATURE 5

III. THE SURVEY               20
    Organization of the school system 20
    Physical facilities          22
    Audio-Visual equipment      33
    Audio-Visual materials      37
    The Problem of Teacher Use of Audio-Visual Aids 44
    The Financial Situation    45
    The Problem Reviewed       46

IV. THE PLAN                  47
    The Director               48
    Qualifications of the director 50
    Professional preparation of the director 51
    Functions of the director  52
    Limitations to service     59
    Salary of the director     60
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Facilities</td>
<td>61</td>
</tr>
<tr>
<td>Light Control</td>
<td>63</td>
</tr>
<tr>
<td>Electric Outlets</td>
<td>65</td>
</tr>
<tr>
<td>Acoustics</td>
<td>65</td>
</tr>
<tr>
<td>Ventilation</td>
<td>66</td>
</tr>
<tr>
<td>Workshop Area</td>
<td>66</td>
</tr>
<tr>
<td>Display Space</td>
<td>67</td>
</tr>
<tr>
<td>Storage Space</td>
<td>68</td>
</tr>
<tr>
<td>Summary</td>
<td>69</td>
</tr>
<tr>
<td>Purchase and Selection of Equipment</td>
<td>72</td>
</tr>
<tr>
<td>Procedure for selection</td>
<td>72</td>
</tr>
<tr>
<td>Evaluation form</td>
<td>73</td>
</tr>
<tr>
<td>Recommended allocations of equipment</td>
<td>75</td>
</tr>
<tr>
<td>Procedure for the Purchase of equipment</td>
<td>79</td>
</tr>
<tr>
<td>Selection and Purchase of Materials</td>
<td>80</td>
</tr>
<tr>
<td>Financial Considerations</td>
<td>82</td>
</tr>
<tr>
<td>Per-pupil expenditure</td>
<td>82</td>
</tr>
<tr>
<td>Preparation of the budget</td>
<td>83</td>
</tr>
<tr>
<td>The Audio-Visual Center</td>
<td>88</td>
</tr>
<tr>
<td>Location of the center</td>
<td>88</td>
</tr>
<tr>
<td>Housing</td>
<td>89</td>
</tr>
<tr>
<td>Activities and services of the center</td>
<td>90</td>
</tr>
<tr>
<td>Materials and equipment in the center</td>
<td>92</td>
</tr>
<tr>
<td>Distribution</td>
<td>92</td>
</tr>
<tr>
<td>Practical aspects of distribution</td>
<td>93</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Use of coordinators</td>
<td>93</td>
</tr>
<tr>
<td>Forms and records</td>
<td>95</td>
</tr>
<tr>
<td>Method of delivery</td>
<td>100</td>
</tr>
<tr>
<td>In-Service Education</td>
<td>102</td>
</tr>
<tr>
<td>Factors which contribute to a successful in-</td>
<td></td>
</tr>
<tr>
<td>service program</td>
<td>103</td>
</tr>
<tr>
<td>Objectives of the in-service program</td>
<td>103</td>
</tr>
<tr>
<td>Types of in-service training</td>
<td>104</td>
</tr>
<tr>
<td>Student Operators</td>
<td>109</td>
</tr>
<tr>
<td>Community Resources</td>
<td>110</td>
</tr>
<tr>
<td>Means of obtaining data</td>
<td>112</td>
</tr>
<tr>
<td>Public Relations</td>
<td>115</td>
</tr>
<tr>
<td>Conclusions</td>
<td>116</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>120</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>123</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Audio-Visual Equipment Available in Each School</td>
<td>35</td>
</tr>
<tr>
<td>II. Audio-Visual Equipment Available in Cumberland's Schools</td>
<td>36</td>
</tr>
<tr>
<td>III. Audio-Visual Materials Available in Cumberland's Schools: Each school</td>
<td>38</td>
</tr>
<tr>
<td>IV. Audio-Visual Materials Available in Cumberland's Schools: Each type</td>
<td>39</td>
</tr>
<tr>
<td>V. Available Materials for Specific Subject Areas in All Schools</td>
<td>43</td>
</tr>
<tr>
<td>VI. Available Materials for the Various Grade Levels in All Schools</td>
<td>44</td>
</tr>
<tr>
<td>VII. Additional Equipment Necessary to Meet Recommended Allotments to Supply Basic Needs in Individual Schools</td>
<td>78</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

FIGURE                  PAGE
1. Adaptation of All Classrooms for Using Audio-Visual Materials ........................................... 24
3. Adaptation of Classrooms in Each School for the Use of Audio-Visual Materials: Electric Outlets ... 26
5. Adaptation of Classrooms in Each School for the Use of Audio-Visual Materials: Ventilation ......... 28
6. Adaptation of Classrooms in Each School for the Use of Audio-Visual Materials: Workshop Area ....... 29
7. Adaptation of Classrooms in Each School for the Use of Audio-Visual Materials: Display Space ....... 30
8. Adaptation of Classrooms in Each School for the Use of Audio-Visual Materials: Storage Space ....... 31
10. Audio-Visual Equipment Available in 1946 and 1956 ................................................................. 33
11. Equipment Rating Sheet ............................................................................................................. 74
12. A Suggested Room Arrangement for the Audio-Visual Center and School Library; 500 Square Feet of Floor Space ................................................................. 89
<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Form for Requesting Material</td>
<td>96</td>
</tr>
<tr>
<td>15. Office Record of Materials</td>
<td>98</td>
</tr>
<tr>
<td>16. Office Record of Equipment</td>
<td>99</td>
</tr>
<tr>
<td>17. Accession Record: Equipment</td>
<td>100</td>
</tr>
<tr>
<td>18. Accession Record: Materials</td>
<td>100</td>
</tr>
</tbody>
</table>
CHAPTER I

THE PROBLEM

Statement of the problem. The purpose of this study is to formulate a plan for the organization and administration of an audio-visual program in the public schools in Cumberland, Rhode Island.

Definition of terms. "Audio-visual aids", "teaching tools", and "curricular materials" have been used interchangeably in this study. These terms have been simply described as aids to teaching and learning, materials that facilitate the understanding of the written and spoken word, and the means that provide concrete experiences. McKown and Roberts have defined well these materials as "supplementary devices by which the teacher, through the utilization of more than one sensory channel, helps to clarify, establish, and correlate accurate concepts, interpretations, and appreciations."

Scope of the study. The Town of Cumberland has furnished its teachers with most types of visual materials such as maps, globes, and reference books. In the field of

pictures, posters, photographs, specimens, and models, the
teachers must rely on their own resources and initiative.
An effort was made in this study to determine the present
status of audio-visual aids in all the town's schools by
making a survey of the physical facilities, the more ex-
pensive mechanical aids such as projectors, and the avail-
able materials for them.

The very nature of this topic limits its direct appli-
cation to a specific school system. It is hoped that school
systems in other towns or cities with a population of 18,000
will find practical possibilities rather than idealistic
plans for an audio-visual program that can be tailored to
their individual situations. As the best cook always changes
a recipe in terms of her experience, so each school system
may adapt the recommendations offered as a framework on which
to build.

Plan of the study. The first step included a prelimi-
nary study of the literature devoted to this topic. Follow-
ing this investigation, the information necessary for a
portion of this study was procured in two ways: (1) a
personal interview with the principals and some of the
teachers in each building, and (2) a personal survey of the
available audio-visual aids and the physical facilities for
the use of these devices. From this accumulation of data
the writer has endeavored to lay the foundation for a plan to organize and administer an audio-visual program.

**Justification of the problem.** Many teachers today use audio-visual materials indiscriminantly, in poorly equipped classrooms, and without the proper techniques and methods which have been proven to result in more meaningful learning and teaching. The need for an organized plan is obvious.

The proper use of these teaching tools is ultimately the teacher's responsibility. So that the teacher may receive the requisite incentive, knowledge, and equipment, the numerous duties and procedures necessary, rightfully belong to others; namely the director and administrators. With competent management, adequate facilities, proper equipment and materials, sufficient funds, and informed and trained teachers, an audio-visual education program for any school system can be a success.

The value of this study is emphasized by Campion in the following statement:

A visitor to the classroom of a really good teacher these days is likely to see a wide variety of audio-visual instructional materials. Modern teachers are in-

---

interested not merely in presenting subject matter out of a textbook; they want to achieve their teaching objectives efficiently and effectively. Audio-visual methods offer the instructor the best way to do this. In the modern classroom it is apparent that behind the use of audio-visual materials, there must be an active audio-visual program, well organized and supervised.
CHAPTER II

REVIEW OF PAST LITERATURE

Much has been written in recent years in regard to the various aspects of audio-visual instruction. This type of teaching is not new, since man from the beginning of time has used the concrete and the realistic to communicate with others.

The primary purpose of audio-visual materials is to instruct. If wisely used to accompany the almost indispensable textbook and give it life and meaning, these curricular aids provide a variety of real experiences for a variety of pupils. Many teachers today use such tools indiscriminantly, in poorly equipped classrooms, and without the proper methods and techniques which have been proven to result in more meaningful learning and teaching. To avoid this waste of time, money, pupil interest, and teacher effort, school systems in increasing numbers throughout the nation are establishing audio-visual departments.

The available literature presents extensive information on methods and techniques for effective utilization of all types of audio-visual materials, but emphasis on organizing and developing an audio-visual program is comparatively limited. Since the administration of any program involves numerous problems concerned with all aspects of these materials
any text in the field of audio-visual education can be considered as a basic source of valuable information which potentially supplies the solution to some specific problem in administration. The purpose of this chapter is to acquaint the reader with those areas in selected books which are primarily concerned with the organization and administration of an audio-visual program. Frequently lengthy discussions of idealistic plans are presented which can never be realized. However, from such data, the practical possibilities of an audio-visual program can be developed by tailoring such details to fit the local situation.

According to Wittich and Schuller, the question of how to "get started" might be answered in four general ways:

1. The existing instructional materials and methods can be surveyed and recommendations made.
2. Study and policy-forming committees of teachers, supervisors, and administrators can be set up.
3. New equipment and materials can be purchased and placed at the disposal of teachers and pupils.
4. A director of audio-visual instruction can be appointed and given the responsibility.

Additional considerations which contribute more directly to the establishment of an effective and efficient program, as indicated by these authors, are:


2. Ibid., pp. 510-516.
1. All teachers seek to create realistic and meaningful experiences in their own classrooms.

2. The administrative leader must coordinate the plans and needs and interests of many teachers in many classrooms.

3. In urban communities of over 10,000 population, a full-time audio-visual director is frequently appointed and provided with central office responsibility in connection with audio-visual media.

4. In policy formation, everyone should have a part; in the execution of policies, the director is responsible for putting the thoughtful planning into practice.

5. Once policies have been created and specific plans made for their implementation, adequate funds recommended by the director must be set aside by the school board.

6. Policy is the process of (1) establishing and having thoroughly understood what is to be done and (2) having all involved know clearly who is to do what. The how of all that is to be done must also be determined.

Broad principles of initiating the audio-visual program have been presented by Dale. Basically, the director has a staff position like that of other directors or supervisors in the school system. Dale summarizes the functions of the director as follows:

1. Surveys materials, equipment, and available personnel, and analyzes them in relation to the over-all program.

2. Works with central administrative staff to improve the quality of students' experience.

3. Helps in organizing procedures for selecting materials and equipment.

---


4 Ibid., pp. 519.
4. Informs teachers of available materials and their conditions of use.
5. Arranges production facilities for teachers and develops specialized materials and programs when needed.
6. Provides help and guidance to teachers on problems related to materials.
7. Develops long-range plans.
8. Interprets the program to administrators, teachers, supervisors, and the public.
9. Evaluates the program in cooperation with others.

"A coordinated source of information useful to audiovisual specialists at all levels" has been published by the Department of Audio-Visual Instruction of the National Education Association. This text is entirely concerned with the over-all program emphasizing such aspects as: administration of an audio-visual center; provision of audio-visual materials, equipment, and building facilities; selection and education of personnel; curriculum improvement and the audiovisual program; supervision and in-service training; distribution and circulation; financial support; and evaluation of the audio-visual program.

Of special interest to those concerned with establish-


6 Ibid., pp. 32-265.
ing an audio-visual program is the section written by Joseph B. Johnson, outlined below.

I. Analysis of Needs -- An Initial Survey to Find Facts.
   A. Materials and Equipment Available.
   B. Information on Audio-Visual Materials and Equipment.
   C. Circulation of Available Materials and Equipment.
   D. Building Facilities.

II. Establishing an Organization for Audio-Visual Services.
   A. Appointment of an Audio-Visual Director.
   B. Initial Functions of the Director.
   C. Values of an Advisory Council.
   D. Steps in Activating a Going Program.

III. Development of the Audio-Visual Program.
   A. Detailed Action Research.
   B. A Balance of Materials.
   C. Evaluation and Selection of New Materials and Equipment.
   D. Budget Preparation.
   E. Analysis of Community Resources.
   F. Local Production of Materials.

In Kinder's text, an attempt has been made to suggest basic considerations to all audio-visual programs, regardless of size. Among those most pertinent to the topic of the writer are:

7 Ibid., pp. 21-31.
9 Ibid., pp. 541-564.
1. All school systems need a director of the audio-visual program to coordinate the activities of the program.
2. Communities of teachers are helpful in an advisory capacity but cannot do the administrative work.
3. The duties and responsibilities of the director will be determined by the size of the school system.
4. The scope of the department will determine the size of the staff.
5. The appropriate materials and equipment, in sufficient quantity, and at the right time must be provided by the city for the educational development of the pupils.
6. All materials and equipment must be carefully selected with the help of teacher committees, and purchased by the director.
7. There should be a central office or audio-visual room or library.
8. Adequate housing for the audio-visual department must be provided.
9. Budgetary provision must be made if the program is to become a dynamic and integral part of the school's educational program.
10. A certain amount of basic material is necessary before the program can begin.
11. Specific services for teachers must be organized so that they can and will make intelligent use of audio-visual materials.
12. The program is usually "administrator conceived" but must include teachers in the selection and arrangement of the aids which they are expected to use.
13. A public relations program must be carried on within the school system and the community in order to foster better understanding and financial support for the audio-visual program.

One of the most recent texts in this field has been written by Sands who suggested that it might well serve as a reference guide for administrators and supervisors. This

The author has listed and discussed in detail the following topics which he considered important to skillful administration of an audio-visual program: basic principles and practices; staff problems; financial considerations; distribution of the budget; decentralization; organization of the depository; selection and purchase; distribution; and teaching the teachers.

Harcleroad and Allen have compiled valuable information exclusively concerned with the topic of this thesis in their book, "Audio-Visual Administration." This volume can be helpful to every type of educator.

Public school and college administrators can obtain a broader personal knowledge of the field and specific suggestions for setting up an expanded program in their own school or college. Audio-visual directors, supervisors and building representatives, likewise, can find specific information on many topics, as well as a larger view of their overall responsibilities in a modern educational system. Finally, college professors and students working in this area will find practical and theoretical knowledge combined in one volume for reference or text material.

---

11 Ibid., pp. 511-525.


13 Ibid., Preface.
Containing six sections, this book is designed to cover:

1. The backgrounds upon which audio-visual practices must be based.
2. Central departmental problems.
3. Local school problems.
4. Improving instruction through the use of audio-visual materials.
5. Some specific materials of instruction.

According to De Kieffer and Cochran, the audio-visual program, to be of primary importance to the entire school system, should include the following:

a. An administrative audio-visual policy indicating the philosophy and objectives to be obtained.
b. A well-trained person responsible for directing the program. This person should be primarily an educator in both the elementary and secondary curriculum and training in the audio-visual field.
c. A center where all materials, equipment, and previewing facilities are made available to the teaching staff.
d. A well-planned method of distribution of all materials to the schools.
e. A program of selection of materials through teacher and curriculum specialists. An evaluation program of all instructional materials closely allied with the selection groups.
f. A continuing teacher in-service training program of demonstrations and discussions on instructional materials and the improvement of instruction.
g. A budget adequate to purchase, replace, repair, and maintain the equipment and materials for the audio-visual program.

---


h. A program to encourage the local production of inexpensive types of audio-visual materials such as slides, filmstrips, flat pictures, graphs, charts, models, and other inexpensive instructional materials.

Since many schools have acquired equipment and materials without a planned audio-visual program, a revised program might be initiated by first making a complete survey of existing equipment, materials, and facilities. Organizing this information into a master inventory which would indicate immediate and long-range needs is the second step. According to De Kieffer and Cochran, the three ingredients necessary for an effective audio-visual program are:

1. The person -- the one to whom the responsibility of the program must be delegated.
2. The place -- the location where teachers can obtain assistance as well as materials.
3. The plan, well-conceived and expeditiously carried out. 16

Designed primarily for pre-service or in-service training, this manual might well be included on the reference shelf of the audio-visual center.

To those seeking guidance, knowledge, and skills in this vital area of education, Haas and Packer have provided

16 Ibid., pp. 204-5.

a text which offers specific facts and suggestions for the preparation and use of all types of audio-visual aids, definite plans for organizing their use, evaluation criteria and techniques, and directions for personalizing audio-visual instruction. This text might be of most value in the "teaching the teachers" part of the program, especially the simple, direct, practical "do's" listed after the discussion of each aid.

The book written by McKown and Roberts is directed primarily to teachers, with particular emphasis on selection and care of materials and presentation of lessons in different subjects in the various grades. One section of direct help to this paper is that concerned with the qualifications and duties of the director and the suggestions for the audio-visual center. Relating to the qualifications of the director, this text suggests:

1. The director should have a wide acquaintance with the objectives and subject matter of the various grades from primary through high school, and he should be familiar with progressive methods of instruction.
2. He should be acquainted with the purposes and functions -- and also the problems -- of the audio-visual department.
3. He should have a good understanding of the different types of aid, their place, scope, and function.

4. He should be thoroughly familiar with the techniques and procedures for utilizing audio-visual aids as a regular part of the instructional program.

5. He should be able to help select the audio-visual aids that contribute to the major educational objectives. His educational background should be sufficient to warrant his holding a permanent place on the curriculum committee.

6. He should possess initiative, courage, vision, tact, and ambition and the personality that attracts teachers and co-workers.

7. He must have considerable administrative and executive ability.

8. He should possess a certain amount of mechanical skill because in many instances, especially in the smaller systems and schools, he will be called upon to make minor adjustments and repairs.

9. He should possess the respected qualities of leadership, not the least important of which is the willingness and the ability to learn.

10. He must be able to interpret the program not only to the teachers and administrators but also to the general public. 19

Among the duties for this office, recommended by McKown and Roberts, are: (1) selecting the audio-visual committee and the building coordinators; (2) appointing assistants; (3) preparing the budget; (4) supervising the staff of the audio-visual center; (5) purchasing equipment and materials; (6) conducting faculty meetings; (7) assisting teachers individually; (8) assisting supervisors; (9) arranging demonstration lessons; (10) preparing handbooks, bulletins, and other publications; (11) evaluating the program; (12) planning

19 Ibid., p. 534.

20 Ibid., pp. 536-550.
and conducting the in-service training program; (13) coordinating and supervising the use of sound equipment; (14) educating the community in audio-visual ideals and procedures; and (15) other responsibilities.

A wealth of information can now be found in numerous booklets, magazine articles, and theses. Included in the first group, the recent publications of the Department of Audio-Visual Instruction of the National Education Association has published a series of booklets, containing excellent information for those interested in planning for the use of audio-visual aids. The titles are:

"Planning Schools for the Use of Audio-Visual Materials: No. 1, Classrooms"

"Planning Schools for the Use of Audio-Visual Materials: No. 2, Auditoriums"

"Planning Schools for the Use of Audio-Visual Materials: No. 3, The Audio-Visual Instructional Center"

21


Primarily most useful where new schools are constructed, this series provides numerous ideas and suggestions which could be utilized in the remodeling of older buildings without requiring enormous expense.

The Research Division of the National Education Association provided a valuable aid in the publication entitled "Audio-Visual Education in Urban School Districts, 1953-54." This booklet presents the results of a nation-wide survey and its implications, concentrating upon audio-visual materials and the administration of audio-visual programs. Other booklets in the field are available, but those listed were especially helpful in this study.

Magazine articles, too numerous to mention, are perhaps the best sources of practical information for the audiovisual director and his staff. Although most professional periodicals present many worthwhile items, the magazines which are specifically and entirely concerned with all aspects of audio-visual instruction are:

1. Audio-Visual Communications Review, Department of Audio-Visual Instruction, National Education Association, Washington, D. C.


Like the magazine articles, theses in audio-visual education present a valuable source of practical information. They provide possible solutions to particular local problems which in reality include many similarities to problems in other localities. The theses which the writer found to be directly associated with this study included:


Following the basic recommendations presented in the selected references might prove to be an impossible task to the audio-visual director, his department should have clearly defined functions, determined by the curriculum needs of his particular school system. Thus, specific details or services offered for consideration in the texts might be selected as a framework on which to build an audio-visual program in a particular locality. Whatever services are included in any program, the following thought might help in their execution.

*Begin where you are, not where you wish you were.*

*Make a work plan, then work the plan.*

*Make haste slowly.*
CHAPTER III

THE SURVEY

Before any coordinated plan for the development of any program can be initiated, the present status of the facilities and materials for the program must be determined. Most schools have acquired a certain amount of projection equipment and other types of audio-visual aids, without any planned procedure. Thus, to organize a revised program, a complete survey must be made of existing equipment, materials, and physical facilities. Such a survey was made and included the following:

1. The amount, type, condition, age, and source of equipment available.
2. The amount, type, condition, grade level, and location of materials available.
3. The classroom facilities in each building for the effective utilization of these devices.

Thus, this chapter includes the tabulated data concerning the above factors as determined by the writer by means of a questionnaire and personal interviews with each school principal.

Organization of the school system. The Town of Cumberland provides public education to its people from the first grade in the elementary school through grade twelve in the high school. The general direction of this school system rests with the superintendent of schools. The building pro-
gram, curriculum revision, supervision, and public relations are all part of his broad task.

The administration of nine of the elementary schools is accomplished by teaching-principals; the other elementary school and the high school have supervising-principals. The departments of art and music are headed by four supervisors who work in all eleven schools under the direct supervision of the superintendent. Fifty-eight elementary and nineteen secondary teachers, combined with the principals and supervisors, make a teaching staff of eighty-three people.

At present, the four-year high school has a student body of 555, while the elementary schools have 1,875 pupils. Together, the eleven schools provide 80 classrooms to serve the educational needs of approximately 2,430 students. Four of the ten elementary schools house grades one through eight, while four more contain grades one through four. Of the two remaining, one includes grades one through six and the other grades five through eight.

Due to the unusual distribution of the population in the town, the schools were scattered throughout the various villages. Three of these buildings still house combined grades. The oldest school was constructed in 1850, while the newest was completed in 1955. Considering these factors, the difficulties involved in a system-wide program can be visualized.
Physical facilities. Assuring adequate, physical features for an audio-visual program is one of the most urgent problems confronting the audio-visual field. An accumulation of the best equipment together with the most complete selection of materials remains completely wasted unless the classroom is prepared for their utilization.

No Cumberland schools are thoroughly equipped for the use of these teaching aids. One of the main factors that has retarded the use of materials here and in most school systems (even in the most recently built schools) has been the lack of light control. Many classrooms have been constructed without any means of darkening or controlling light for when projection of pictures is desired. Other major difficulties include inadequate and inconvenient electric outlets, poor ventilation when a room is darkened, and immovable furniture. In addition, insufficient display space, workshop area, and storage room hinder the use of many of the aids. These conditions clearly indicate why audio-visual materials which should be a part of the normal classroom activity, have not grown in classroom use.

Figure 1 presents the overall picture of the status of the physical features of all classrooms. The lowest rating is given to the darkening facilities. Most rooms have the regular light shades but only eight in the entire school system have opaque shades. In the newest school not one room contains the darker shades. Electric outlets have been placed in
at least 25 per cent of the classrooms within the past six years, still 62 per cent of the classrooms have insufficient and inconvenient outlets or none at all. Ventilation is the third outstanding feature due to the fact that the older buildings contain no adequate means for control.

The specific physical features which are adequate, inadequate, or lacking in the classrooms of each school building are indicated in Figures 2 through 9 on the pages that follow. Such data clearly shows the factors which make instruction with audio-visual materials difficult or impossible. Hence, this inventory indicates to school administrators which schools have or lack facilities for such instruction.

Only three schools have auditoriums; not one is properly equipped for using audio-visual materials, although they are used occasionally. Since most of the classrooms in all of the eleven schools require minor improvements and it is generally agreed that basic learning activities should take place in the classroom rather than a special room or auditorium, the improvements to the classrooms should be given first consideration.
FIGURE 1

ADAPTATION OF ALL CLASSROOMS FOR USING AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Electric Outlets</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Darkening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Per Cent of Classrooms (80)

- Well adapted
- Poorly adapted
- Not adapted

*Furniture listed as well adapted is movable; not adapted, fixed.
FIGURE 2

ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
</tr>
</tbody>
</table>

FIGURE 2A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Classrooms</td>
<td>Per Cent of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>8</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>68</td>
</tr>
<tr>
<td>Not adapted</td>
<td>4</td>
</tr>
</tbody>
</table>

*Second date indicates year of addition to original building.
FIGURE 3
ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
</tr>
</tbody>
</table>

% of Adaptation: 0 10 20 30 40 50 60 70 80 90 100

*Second date indicates year of addition to original building.

FIGURE 3A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>30</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>29</td>
</tr>
<tr>
<td>Not adapted</td>
<td>21</td>
</tr>
</tbody>
</table>
FIGURE 4
ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
<th>ACOUSTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

% of Adaptation

*Second date indicates year of addition to original building.

FIGURE 4A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>61</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>19</td>
</tr>
<tr>
<td>Not adapted</td>
<td>0</td>
</tr>
</tbody>
</table>
FIGURE 5

ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
<th>VENTILATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

% of Adaptation

*Second date indicates year of addition to original building.

FIGURE 5A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Classrooms</td>
<td>Per Cent of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>31</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>46</td>
</tr>
<tr>
<td>Not adapted</td>
<td>3</td>
</tr>
</tbody>
</table>
FIGURE 6
ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
</tr>
<tr>
<td>1927 &amp; 1954 Community</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1890 &amp; 1931 Cumberland High</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
</tr>
<tr>
<td>1930 &amp; 1951 Garvin Memorial</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
</tr>
</tbody>
</table>

% of Adaptation

*Second date indicates year of addition to original building.

FIGURE 6A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Classrooms</td>
<td>Per Cent of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>49</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>31</td>
</tr>
<tr>
<td>Not adapted</td>
<td>0</td>
</tr>
</tbody>
</table>

WORKSHOP AREA

- Well adapted
- Poorly adapted
- Not adapted
FIGURE 7
ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE
USE OF AUDIO-VISUAL MATERIALS.

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
</tr>
</tbody>
</table>

DISPLAY SPACE

*Second date indicates year of addition to original building.

FIGURE 7A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>52</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>27</td>
</tr>
<tr>
<td>Not adapted</td>
<td>1</td>
</tr>
</tbody>
</table>
FIGURE 8
ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
</tr>
</tbody>
</table>

% of Adaptation

*Second date indicates year of addition to original building.

FIGURE 8A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Classrooms</td>
<td>Per Cent of Classrooms</td>
</tr>
<tr>
<td>Well adapted</td>
<td>51</td>
</tr>
<tr>
<td>Poorly adapted</td>
<td>16</td>
</tr>
<tr>
<td>Not adapted</td>
<td>13</td>
</tr>
</tbody>
</table>
FIGURE 9

ADAPTATION OF CLASSROOMS IN EACH SCHOOL FOR THE USE OF AUDIO-VISUAL MATERIALS

<table>
<thead>
<tr>
<th>Year* of Const.</th>
<th>School</th>
<th>No. of Rms.</th>
<th>FURNITURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>Ashton</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1872</td>
<td>Berkeley</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1867</td>
<td>Blackstone</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1902</td>
<td>Clark St.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>Central Grammar</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1927 &amp; 1954</td>
<td>Community</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1890 &amp; 1931</td>
<td>Cumberland High</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>Cumberland Hill</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>Edgemere</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1930 &amp; 1951</td>
<td>Garvin Memorial</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>Valley Falls</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

*Second date indicates year of addition to original building.

% of Adaptation

FIGURE 9A

<table>
<thead>
<tr>
<th>Degree of Adaptation (%)</th>
<th>ALL SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Classrooms</td>
</tr>
<tr>
<td>Movable</td>
<td>52</td>
</tr>
<tr>
<td>Fixed</td>
<td>28</td>
</tr>
</tbody>
</table>
Audio-Visual Equipment. The powerful stimulus to audio-visual education which arose during World War II had little effect in this town. In 1946, the entire school system had but one sound motion picture projector and a screen, three "antique" record players, and three serviceable radios. All have since been discarded and some replacements have been made. From 1950, curricular tools have been increased, due to certain interested teachers, other groups, and the building improvement program. Figure 10 which follows was prepared to show the equipment available in 1946 as compared to that available in 1956.

**FIGURE 10**

AUDIO-VISUAL EQUIPMENT AVAILABLE IN 1946 AND 1956

<table>
<thead>
<tr>
<th>Equipment</th>
<th>1946</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection Screen</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Radio-Phono. Combination</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Filmstrip and Slide Projector</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16 mm. Sound Projector</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Public Address System</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number available 1 2 3 4 5 6 7 8 9 10 11 12
A brief explanation of some of the items, now available, might present a better picture of the situation in this town. One elementary school with ten classrooms and 360 pupils possesses four screens (one electrically operated), two radio-phonograph combinations, and one of each of the items listed in Figure 10. Since this equipment was purchased from a new school appropriation, it serves this school only. A four-room elementary school was doubled in size and the special building improvement fund provided this school with a 16 mm. sound projector, a slide-filmstrip projector, an opaque projector, and two screens for projection. This equipment serves this school only. The high school list includes a 16 mm. sound projector, a filmstrip projector, a tape recorder, one radio-phonograph, and four screens. Listed as property of the school department, this equipment is frequently in use in other buildings for both school and community groups. The remaining items are scattered among eight schools which house approximately half of the school population. Acquired by teacher-raised and P. T. A. funds, this equipment is owned and used by the individual schools. All available equipment is in good (mostly new) condition and is stored in or near the school principal's office.

Table I was prepared to show the equipment now available in each of the schools; Table II, the school system.
TABLE I

AUDIO-VISUAL EQUIPMENT AVAILABLE IN EACH SCHOOL*

<table>
<thead>
<tr>
<th></th>
<th>16 mm. Sound Projector</th>
<th>Filmstrip-Slide Projector</th>
<th>Opaque Projector</th>
<th>Tape Recorder</th>
<th>Radio-Phono Combination</th>
<th>Record Player</th>
<th>Screen(s)</th>
<th>Public Address System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkeley</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackstone</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clark Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumberland High</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Cumberland Hill</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>3</td>
<td>x</td>
</tr>
<tr>
<td>Edgemere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garvin Memorial</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Valley Falls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL SCHOOLS</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

* x indicates one piece of equipment.
TABLE II

AUDIO-VISUAL EQUIPMENT AVAILABLE IN CUMBERLAND'S SCHOOLS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>No. of Schools Reporting on Question</th>
<th>Schools Reporting Item Available No.</th>
<th>%</th>
<th>Pieces of Equip. Available % Owned by Sch.Dept.</th>
<th>% Owned by Ind.Sch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 mm. Sound Proj.</td>
<td>11</td>
<td>3</td>
<td>27%</td>
<td>3</td>
<td>33-1/3%</td>
</tr>
<tr>
<td>Film-Slide Proj.</td>
<td>11</td>
<td>5</td>
<td>45%</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>11</td>
<td>2</td>
<td>18%</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Proj. Screens</td>
<td>11</td>
<td>6</td>
<td>55%</td>
<td>11</td>
<td>36%</td>
</tr>
<tr>
<td>Recorders</td>
<td>11</td>
<td>2</td>
<td>18%</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Radio-Phono. Comb.</td>
<td>11</td>
<td>10</td>
<td>91%</td>
<td>10</td>
<td>0%</td>
</tr>
<tr>
<td>Record Players</td>
<td>11</td>
<td>1</td>
<td>9%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>P. A. System</td>
<td>11</td>
<td>1</td>
<td>9%</td>
<td>1</td>
<td>0%</td>
</tr>
</tbody>
</table>
Audio-visual Materials. The survey of audio-visual materials was concerned with the amount of materials available in each school, the grade level and subject use for them, the source, the owner, and location of storage. Since no provision has been made by the school department for materials to accompany the equipment listed in the preceding topic, the amount of materials available is relatively small. Like the equipment, the existing aids were purchased with individual school funds in most cases and, therefore, are owned, used and stored in the individual schools. Interested teachers, principals, or groups of teachers selected and purchased them with money obtained from school plays or P. T. A. funds and this small number of teachers make use of them.

Table III was prepared to show the data on types of available materials in the individual schools. On occasion, schools with electrical outlets, darkening facilities, and a borrowed projector secure motion pictures from the State Department of Audio-Visual Aids or rent films from other sources. All but one of these buildings has a radio-phonograph combination but, in most cases, few if any records are available, and little or no use is made of the radio. Records are brought to the schools by interested teachers or pupils. Table III does not include every kind of instructional tool that classroom teachers use, especially those for particular subjects or the great variety of materials for exhibits and demonstrations.
which have been obtained and organized due to the interest, initiative, and resourcefulness of the individual teachers for their particular classrooms. Table IV was designed to show the amounts of available audio-visual materials in the school system.

**TABLE III**

**AUDIO-VISUAL MATERIALS AVAILABLE IN CUMBERLAND'S SCHOOLS**

<table>
<thead>
<tr>
<th>Type of Material</th>
<th>Ashton</th>
<th>Berkeley</th>
<th>Blackstone</th>
<th>Central Grammar</th>
<th>Clark Street</th>
<th>Community</th>
<th>Cumberland High</th>
<th>Cumberland Hill</th>
<th>Edgemere</th>
<th>Garvin Memorial</th>
<th>Valley Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 mm. Sound Films</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filmstrips</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide Sets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record Albums</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tape Recorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* indicates type of material available.
TABLE IV
AUDIO-VISUAL MATERIALS AVAILABLE
IN CUMBERLAND'S SCHOOLS

<table>
<thead>
<tr>
<th>Type of Material</th>
<th>No. of Schools Reporting</th>
<th>Schools Reporting Item Available</th>
<th>No. of Item</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Motion pictures</td>
<td>11</td>
<td>2</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Filmstrips</td>
<td>11</td>
<td>4</td>
<td>36</td>
<td>242</td>
</tr>
<tr>
<td>Slide sets</td>
<td>11</td>
<td>1</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Record albums</td>
<td>11</td>
<td>6</td>
<td>73</td>
<td>50</td>
</tr>
<tr>
<td>Records (separate)</td>
<td>11</td>
<td>2</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>Tape recordings</td>
<td>11</td>
<td>1</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

* Purchased for special subjects in the high school.
In the individual schools, no cataloging has been done which readily shows accurate amounts, subject uses, and specific grade levels for the materials listed in the previous tables; there is no such tabulation in the office of the superintendent. Each school selects, purchases, and uses (in most cases, infrequently) its own materials. The survey revealed the following figures:

**Cumberland High School (Grades 9-12)**

1. Filmstrips
   - Home Making: 31
   - Science: 20
   - Social Studies: 18
   - English: 6
   - Teacher Education: 1

2. Record (Albums)
   - Typewriting: 1

3. Motion Pictures
   - Social Studies: 1

4. Tape Recording
   - Social Studies: 1

**Cumberland Hill School (Grades 1-8)**

1. Filmstrips
   - Social Studies: 22
   - Language Arts: 5
   - Science: 3
Cumberland Hill School (Cont.)

2. Records (Single)
   Social Studies 17

3. Motion Pictures
   Social Studies 1

Community School (Grades 1-8)

1. Filmstrips
   Social Studies 19
   Science 15

2. Record (Albums)
   Social Studies 2
   Language Arts 3
   Music 3

Garvin Memorial School (Grades 1-6)

1. Filmstrips
   Social Studies 37
   Science 24
   Language Arts 19
   Guidance 10
   Arithmetic 9

2. Slide Sets
   Social Studies 11
   Language Arts 3
Garvin-Memorial School (Cont.)

3. Record Albums
   - Language Arts: 6
   - Music: 7
   - Social Studies: 1

4. Records (Single)
   - Music: 23

Valley Falls School (Grades 1-4)

1. Filmstrips
   - Social Studies: 3

2. Record Albums
   - Language Arts: 4

3. Records (Single)
   - Guidance: 1

Blackstone School (Grades 1-4)

1. Record Albums
   - Language Arts: 1
   - Music: 2

The following table was prepared to summarize the above information. Materials for Social Studies are more abundant than for any other subject. Smaller numbers are available for Science, Language Arts, Homemaking, Guidance, and Arithmetic. Most records located in the survey, with the exception of those for Social Studies, seem to be used for entertainment,
rhythms, and primary games.

**TABLE V**

**AVAILABLE MATERIALS FOR SPECIFIC SUBJECT AREAS IN ALL SCHOOLS**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Films strips</th>
<th>Records Albums</th>
<th>Single Sets</th>
<th>Motion Pictures</th>
<th>Tape Record</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>99</td>
<td>23</td>
<td>17</td>
<td>11</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Science</td>
<td>62</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>62</td>
</tr>
<tr>
<td>Homemaking</td>
<td>31</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>31</td>
</tr>
<tr>
<td>Language Arts</td>
<td>30</td>
<td>14</td>
<td>--</td>
<td>3</td>
<td>--</td>
<td>47</td>
</tr>
<tr>
<td>Guidance</td>
<td>10</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>11</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>9</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>9</td>
</tr>
<tr>
<td>Teacher Education</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Music</td>
<td>--</td>
<td>12</td>
<td>23</td>
<td>--</td>
<td>--</td>
<td>35</td>
</tr>
<tr>
<td>Typewriting</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>242</strong></td>
<td><strong>50</strong></td>
<td><strong>41</strong></td>
<td><strong>14</strong></td>
<td><strong>2</strong></td>
<td><strong>350</strong></td>
</tr>
</tbody>
</table>

Since most of these materials have been acquired with money donated by P. T. A. groups and selected by certain interested teachers in the individual schools, there appears to be no definite plan by which materials are obtained for use in all subjects and all grades. Emphasis placed upon materials for the various grade levels is indicated in Table VI.
TABLE VI
AVAILABLE MATERIALS FOR THE VARIOUS GRADE LEVELS
IN ALL SCHOOLS

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Film-Strips</th>
<th>Record(s)</th>
<th>Albums</th>
<th>Single</th>
<th>Slide Sets</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>43</td>
<td>29</td>
<td>16</td>
<td>3</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>Primary/Intermediate</td>
<td>27</td>
<td>1</td>
<td>3</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>22</td>
<td>3</td>
<td>11</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate/Junior High</td>
<td>67</td>
<td>1</td>
<td>17</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior High</td>
<td>23</td>
<td>2</td>
<td>17</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior/Senior High</td>
<td>59</td>
<td>1</td>
<td>17</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior High</td>
<td>1</td>
<td>13</td>
<td>5</td>
<td>19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There were no materials available in 1946; practically all the aids listed above have been acquired since 1950. Improvement and new building appropriations since 1950 have provided audio-visual equipment in Garvin Memorial, Cumberland Hill, and Community Schools so that materials to accompany equipment has been accumulated in those schools.

The Problem of Teacher Use of Audio-Visual Aids. One of the greatest handicaps is the lack of teacher training. There is no doubt that the teacher who lacks the ability to operate the equipment is not going to use that which might be available. Since the majority of the town's teachers grad-
uated from college over fifteen years ago when modern instructional devices were just being developed and audio-visual courses were almost non-existent, they are not too familiar with the techniques and methods of the use of these curricular materials.

In some schools where materials are available, interested teachers have been forced to discontinue the use of projected visual aids for want of adequate darkening facilities. In some situations teachers are still endeavoring to use the materials but are forced to admit that the results of such use have had little effect on learning.

The Financial Situation. The annual budget for the school department contains no listing of expenditures for audio-visual instructional aids. Incomplete school records report the following: (1) in 1950, approximately $800 was spent by the department for audio-visual aids in one school; (2) in 1954, $200 in another; (3) in 1956, approximately $2,000 in another; and (4) equipment purchased individually by schools for various prices at different times. These figures show little consistency in respect to: (1) amounts provided for audio-visual equipment and (2) concern for all schools or pupils in regard to instructional materials. In 1955 the per pupil expenditure for these aids provided by the school department for one school amounted to over six dollars; in 1952 over three dollars per pupil expenditure in a differ-
ent school. Since the years cited, no provision for audio-
visual aids in those schools has been made. Records indicate
no expenditures at all for these materials in all other
schools. No definite figures could be obtained to give a
complete picture of this financial problem.

The Problem Reviewed. An effort was made in this study
to determine the present status of audio-visual aids used for
instruction in all the schools of Cumberland by making a sur-
vey of the available equipment, materials, and physical facil-
ities. From this accumulation of data, the writer will en-
deavor to lay the foundation for a development plan for an
audio-visual program. The nature of this topic limits its
direct application to a specific school system. It is hoped
that school systems in other cities or towns with a population
of 18,000 will find practical possibilities for the organiz-
ation and administration of a program that can be tailored to
meet their local situations. Chapter IV will present a plan
for an audio-visual program which the writer feels should be
initiated in the public schools of Cumberland.
CHAPTER IV

THE PLAN

Audio-visual instruction helps education at all levels in all subject areas when the activities included contribute to the improvement of teaching and the enrichment of learning. Efficient and effective utilization of audio-visual materials is ultimately the responsibility of the classroom teacher. So that the teacher may receive the requisite incentive, knowledge, and equipment, the numerous duties and procedures necessary rightfully belong to others and must be organized from the administration down through the teaching staff in all schools and departments within the school system. To be of any value, an audio-visual program cannot be planned on a day-to-day basis if it is to fulfill its primary purpose: to place in the hands of the teacher the desired materials at the exact time and place desired in order to meet curriculum needs. This program must be schoolwide, well planned, properly directed, and adequately financed if it is to develop as an important means of providing the services which make learning a more vital and realistic experience to pupils and teaching a stimulating and enjoyable challenge.

This study shall not attempt to offer a complete analysis of all aspects involved in the organization and administration of an audio-visual program. One could write a book
on any one phase of this subject. Detailed information of this kind is included in the bibliography at the end of this study. Doing the best as possible at the outset and striving for improvement each succeeding year may well determine a program that is worthwhile. Lengthy details often contribute to idealistic plans for a program that can never be realized. However, from such information, the practical possibilities for the local program could be developed by tailoring various details to meet the existing situation.

Every department should have clearly defined functions which serve as a basis for the organization and operation of its program. Such functions are determined by the curriculum needs of the school system and coordinated by a director, regardless of the size of the system. Thus, certain details offered for consideration in the following pages may be selected as a framework on which to build an audio-visual program.

THE DIRECTOR

Enriching childrens' experiences may be accomplished by the classroom teacher who integrates audio-visual materials into the curriculum and correlates these aids with other teaching materials. Since reading about these tools will never develop competence in the use of them, the teacher needs a guide. This active, specialized guidance is the job of the
Effective utilization of audio-visual materials constitute the heart of the audio-visual program, but efficient administration and supervision are its life's blood. "A program can function successfully only when enthusiasm and leadership are provided." The consensus among the experts is that the administrative control of the program should be centered in one person. "The main objective at the outset is to assign a qualified person who will be responsible for the organization and development of a planned program." "It is the only way in which confusion can be avoided and optimum use can be made of whatever equipment the school (system) possesses." Thus, the most effective administration of this type of instructional program is through a director.

In large urban communities, usually those with over 10,000 population, a full-time director is frequently appointed and given central office responsibility in connection with audio-visual media. Basically, this person has a staff


2 The School Administrator and His Audio-Visual Program, op. cit., p. 25.

3 Kinder, op. cit., p. 540.

4 Ibid., p. 511.
position like that of the supervisors of art and music, under the direct supervision of the superintendent of schools.

Qualifications of the director. In order to coordinate the functions of a department, the director should possess the following qualifications:

1. At least two years of successful teaching experience at either the secondary or elementary level, with subsequent experience in supervision or administration.

2. An understanding of curriculum objectives, of the methods of curriculum construction, and of acceptable instructional practices.

3. A well-balanced and dynamic personality and a wholesome philosophy of life such as are commonly expected of others in comparable positions of educational leadership.

4. Expert knowledge of audio-visual materials and how to use them as an integral part of the instructional program.

5. Skill in operation and simple maintenance of audio-visual equipment and an understanding of the theory and practices related thereto.

6. A working knowledge of basic fields, such as photography, radio production, recording, slide-making, and so on. Although it is not required that he be an expert in any one of these fields, he should be familiar with the processes involved.

7. Skill in organizing and directing the activities of a department.

---

These specifications are in addition to the extensive list of such competencies as interest, knowledge, and appreciation desired of all teachers. Hence, the audio-visual director must be a combination of outstanding teacher, curriculum worker, subject supervisor, and general administrator. Above all, he must have as the center of his interest an abiding faith in working with interested teachers in furthering an understanding of the role of audio-visual equipment and materials in improving instruction and the classroom environment. The successful director is thus more than a teacher highly skilled in the utilization of instructional tools; he is also an expert in human relations.

Professional preparation of the director. The following program has been suggested:

A. Baccalaureate degree from a standard or approved college or university.

B. Elementary or secondary teacher's certificate.

C. One year of graduate study with a master's degree from a standard college or university, including:

Minimum No. 
Sem. hours

1. Basic education courses
   A minimum of one graduate course in each of the following areas: 10-15
   School Administration 2-3
   Supervision of Instruction 2-3
   Educational Psychology 2-3
   Elementary curriculum 2-3
   Secondary curriculum 2-3

2. Audio-visual education
   Graduate courses in three areas as follows: 10-15
   Selection, circulation and utilization 4-6
   Preparation of audio-visual materials (including graphics, filmstrips, and radio programs) 4-6
   Administration of audio-visual materials program 2-3

3. Electives 10-0

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

Specifications like these are now required in some states for a special audio-visual certificate.

Functions of the director. Basically, the director is the coordinating and service agent for the classroom teachers. His duties are numerous and varied. In Cumberland, the responsibility of the entire program will be delegated to this person, due to the size of the school system. He will be an administrator in his own department and, in matters concern-

7 Indiana, Illinois and Massachusetts.
ing instruction with audio-visual materials, he will be a consultant in his relations to other school personnel above or below him.

Since the purpose of an audio-visual program is to provide more meaningful teaching and learning experiences by effective use of curricular tools, certain duties must be performed by the director in large or small systems. "Coordination of the activities of the program can be achieved in no other way." The functions of the director will be grouped under the following headings: (A) Administrative, (B) Supervisory, (C) Advisory, (D) Technical, and (E) Professional.

A. Administrative Functions.

1. First Year.

a. Make an inventory of facilities, equipment, and materials.

b. Advise teachers of available materials and sources of materials.

c. Develop a series of forms for use in ordering, scheduling, evaluating, and maintaining materials and equipment.

d. Set up a simple ordering procedure.

e. Order and schedule materials.

f. Establish an efficient circulation service.

g. Provide operators if and when necessary.

h. Select new equipment and materials with the assistance of teacher committees.

Kinder, op. cit., p. 541.
i. Plan and prepare a tentative budget.

j. Report to the school authorities: (1) the over-all picture of the present status of the program; (2) long range plans; and (3) the tentative budget necessary for carrying out immediate and future plans.

2. Second Year:
   a. All the above functions except c, d, e, and f.
   b. Organize an audio-visual center where materials may be classified and stored for easy selection.
   c. After selection of new equipment and materials with the assistance of teacher committees, purchase equipment and materials.
   d. Promote public relations by working with teachers, community groups.

3. Third Year:
   a. Same functions as the first year except c, d, e, and f.
   b. Same functions as the second year except b.
   c. Participate in curriculum revision.

4. Fifth Year:
   a. Same functions as third year.

5. Tenth Year:
   a. Same functions as the third year.

B. Supervisory Functions.

1. First Year:
   a. Supervise the operating of the program in the individual schools by conferring with teachers regarding use of equipment and materials, and giving individual help in
matters of selection of materials and the methods of instruction.

b. Organize and maintain a library of catalogs, books, periodicals, etc.

c. Plan and provide in-service training for teachers: (1) conduct faculty meetings to stimulate the use of audio-visual aids; (2) train individual teachers in the use of them; and (3) encourage teachers to take audio-visual courses at Rhode Island College of Education.

2. Second Year.

a. Same as first year.

b. Organize student projectionist groups in individual schools.

c. Issue bulletins or newsletters.

3. Third, Fifth, and Tenth Years.

a. Same as Second year.

b. Encourage production of simple teaching materials.

C. Advisory Functions.

1. First Year.

a. Inform the superintendent of schools of the necessary financial support of the program so that he may take provision for the needs of the audio-visual program in the preparation of the total school budget.

b. Advise users of proper and effective utilization practices.

c. Suggest to teachers some ways of coping with problems of light control, ventilation, etc.

2. Second Year.

a. Same as first year.
b. Assist in the production of materials.

c. Cooperate with school authorities in the planning of new buildings and the remodeling of old ones, in terms of the needs of the audio-visual program.

3. Third and Fifth Years.

a. Same as second year.

4. Tenth Year.

a. Inform the superintendent of the necessary financial support of the program so that provision for audio-visual needs can be included in his preparation of the total school budget.

D. Technical Functions.

1. First Year.

a. Set up forms and procedures for requesting equipment and materials, confirmation of bookings, operation and maintenance records, etc.

b. Select materials and equipment.

c. Keep abreast of new developments of equipment and materials.

d. Emphasize proper techniques and methods of utilization to teachers and student projectionists.

2. Second Year.

a. Same as first year, except a.

b. Purchase materials and equipment.

c. Obtain free and rental materials for teachers upon request.

d. Supervise collections of materials, produced and purchased by outside groups and individual schools.
e. Plan for storage of materials in the audio-visual center.

f. Produce audio-visual materials for use in public relations.

3. Third, Fifth, and Tenth Years.
   a. Same as second year.

E. Professional Functions.

1. First Year.
   a. Appoint teacher committees for special studies of equipment and materials.
   
   b. Plan carefully each aspect of the budget: (1) Sell the administration on the budget; (2) Observe the limitations included; and (3) Assume responsibility for the accounting.
   
   c. Make long range plans for the development and growth of the program.

2. Second Year.
   a. Plan carefully each aspect of the budget.
   
   b. Set up and arrange facilities and space for the audio-visual center.
   
   c. Evaluate the program.

3. Third Year.
   a. Plan carefully each aspect of the budget.
   
   b. Appoint new committees for appraisal program.
   
   c. Train and supervise selected personnel in keeping records and carrying out other functions in connection with the center.
   
   d. Evaluate the program.
4. Each Succeeding Year.
   a. Plan carefully each aspect of the budget.
   b. Constantly evaluate the program.

5. Every Three Years.
   a. Appoint new teacher committees for selection of equipment and materials.
   b. Train and supervise personnel for the audiovisual center.

Educators warn that too ambitious a program usually ends in confusion and failure. To what extent the director in Cumberland could carry on the above services depends upon the time allotted for the program and the financial support provided. At the time of the survey conducted by the writer, it was determined that some teachers were using certain materials, but to a limited extent. Thus, the initial step of the appointed director should be to make a positive effort to provide more efficient and effective use of the materials and equipment already available in the school by carrying out those functions relating to this problem listed above.

In summarizing the functions of the director, Kinder made this statement:

To achieve a dynamic and functional audio-visual program, personnel must be provided who will see that materials are in proper condition and reach the places where they are needed at the right time, and that the teachers have some expertly trained and interested

---

9 Kinder, op. cit., p. 540.
person(s) to whom they can turn with their many problems. Not only must buildings be equipped, but operators must be trained, repairs and general maintenance cared for, and a system of records and reports installed. Someone must have the responsibility of determining the amount of money which should be allocated to the program and how the money should be spent.

**Limitations to service.** The amount of service rendered by the director of an audio-visual program is dependent, not only upon his enthusiasm, but upon the amount of time available in which to do the work. Regardless of the size of the school system, the administration of audio-visual materials must be specifically assigned and not "tacked on" to an already full-time job. In cities of less than 10,000, a part-time director is frequently assigned; in large urban communities with populations of over 10,000, a full-time director is assigned. On the appointment of the director the superintendent of schools should outline executive duties and functions to him and expect that they will be effectively carried out. The time allotted for this assignment can mean the difference between success and failure of the audio-visual program.

---


Salary of the director. Salaries for audio-visual personnel vary widely. Comparisons of salaries in 1950 in a mid-western state revealed that major cities were paying around $5,000 per year for their audio-visual directors.

In a survey of the north central section of the country by Schutte, the amount of money received over and above the teachers' salary schedule ranged from 0 to $1,100 in 1952-3, with an average of $549; from 0 to $1,100 in 1954-5, with an average of $610; and estimates indicated for the year 1955-6, an average of $625. This illustrates the trend for increasing the salary for the audio-visual administrator.

In Cumberland in the coming school year, 1957-8, any teacher with a master's degree and twelve years of teaching experience will receive $5,400. Just after World War II, an audio-visual director was appointed in this town and received $300 above the regular salary schedule for teachers. This person had taught less than two years; he served for one year as director. In a nearby community, a part-time director's salary is $200 above the regular teachers' salary. This person was appointed to the position with little, if any, 


professional preparation or experience in audio-visual education. In the opinion of the writer, the audio-visual director for the public schools in Cumberland should receive a salary of at least $5,700, if he has been teaching ten years and holds a master's degree with specialization in audio-visual education.

PHYSICAL FACILITIES

There is general agreement among parents and educators that children must be adequately prepared to meet the demands of the modern world. There is also general agreement that a child's classroom education can be greatly enriched by bringing the world to him thru controlled audio-visual experience. What is not so widely understood is that the school building itself must be carefully designed to provide for the full utilization of all types of equipment and activities essential to modern teaching. The classroom should be given first consideration because it is the most used environment for teaching -- the normal place for the utilization of audio-visual materials. 14

Conditions in the classroom should be such that the pupils can see projected pictures without strain, can hear appropriate sounds without distraction, and can participate comfortably in any classroom activity which will favor desired learning results. New buildings must be designed and old ones modified to provide the necessary physical accommodations.

At a special town meeting on April 5, 1957, the Cumberland Study Commission, appointed under the provision of a resolution approved by the taxpayers at the Annual Financial Town Meeting the previous year, presented its report which was favorably accepted and approved. This report recommended the construction of a new 10-classroom school in the Ashton area to absorb the overflow of pupils from Community, Garvin, and Cumberland Hill schools and allow for the probable abandonment of the very old, poorly-equipped Ashton and Berkeley schools. (The resolution to float the necessary bond for this building has already been passed by the General Assembly of Rhode Island.) Placing the need of a new senior high school high on a priority list of capital improvements for the town, the Commission advised the formation of a Planning Board to pursue the study of this need. Consequently, the report recommended that the present high school building would be renovated and modernized to provide modern school facilities in the Lonsdale-Valley Falls area by abandonment of the older school buildings in this section of the town. These recommendations are expected to be followed, without delay; the school system in Cumberland will be greatly changed within the next five years.

The above report made provisions for a new senior high school, a new elementary school, remodelling of the present high school, and the probable abandonment of five very old
elementary school buildings. Hence, in place of the present set-up of one secondary and eleven elementary schools, the system in Cumberland would include one secondary and five or six elementary schools. Ambitious plans for the improvement of present physical facilities for the use of audio-visual materials appear to be inadvisable at this time in the following schools: Ashton, Berkeley, Blackstone, Clark Street, and Valley Falls. The writer shall endeavor to plan for the provision of adequate physical facilities in Central Grammar, Community, Cumberland Hill, Edgemere, Garvin Memorial, and the present Cumberland High Schools, since the other school buildings listed above may be abandoned in the not-too-distant future.

Light control. In 35 per cent of the classrooms in the six schools, inadequate darkening facilities prevent the effective use of audio-visual materials. Three of the buildings have at least one classroom equipped with dark shades. In each school, each classroom has the same number and type of windows; hence, the shades may be moved from room to room as needed for the use of equipment. An additional set of shades should be made available in each of these schools since some means of darkening may be desired in two classrooms at the same time. Placing of the shades would be included in the regular preparation of the classrooms for the use of audio-
visual materials. Provision of at least two sets of opaque shades is also recommended for the other schools, since they are relatively easy to operate and less expensive than other types of light control devices. Thus, every building would have two or more classrooms with adequate light control in the initial stages of the program and additional classrooms would be equipped in subsequent years.

As the use of materials becomes a part of the methods of instruction by a greater number of teachers, the audio-visual director should make provision for more efficient means of light control to replace the shades. In the older buildings (Central Grammar, Edgemere, and Cumberland High), the permanent installation of opaque shades would be satisfactory; in the newer buildings (Community, Cumberland Hill, and Garvin Memorial), the use of pull drapes on tracks has been favored by most audio-visual directors at the present time. Among advantages set forth for this method are:

1. They are highly efficient when properly installed.
2. They are easily operated.
3. They need not interfere with ventilation.
4. They may improve acoustics of the classroom.
5. They are available in colors and may therefore be planned to add to the attractiveness of a room.

15 Ibid., p. 13.
Additional advantages for certain types of plastic drapes are: fire-resistant; easily cleaned; permit use of lighter weight track which is easily installed; and less expensive than woven cloth drapes.

Providing such means of light control is a "must" and, therefore, one of the first considerations to be given attention in planning every audio-visual program.

**Electric outlets.** It is generally agreed that electrical outlets should be located at the front and the back of a classroom. Outlets in the front are needed for the use of such equipment as overhead projectors, record players, and tape recorders; outlets at the back, for other projection equipment. Twelve classrooms have no outlets. Installation of twelve outlets in these rooms would provide at least one outlet in every classroom of the six schools. The director should include this item in his first-year plan.

**Acoustics.** This factor presents a minor problem in the schools of Cumberland. In each of four schools, two classrooms have been made by dividing one larger room by a sliding wall to make room for larger pupil enrollments. This problem is temporary since the new building program should eliminate the use of these areas for classrooms and restore

---

16 Ibid.
them for use as auditoriums.

**Ventilation.** Whether classrooms are being used for projection purposes or not, they should be designed to provide adequate ventilation. Since principals in the various schools complained of the present ventilation arrangement and, in the same buildings, audio-visual materials are used infrequently or not at all, it appears that suitable alterations in 25 classrooms should be made from the regular school budget or special building improvement funds.

Using shades for darkening usually adds to the ventilation problem. However, since frequent or prolonged use is not made of projected materials, the darkening problem will be a minor problem in the first years of the organized audio-visual program. Whatever means individual teachers now employ to provide adequate circulation of air should be satisfactory when these projected materials are utilized. In the high school where students change rooms for various subjects, windows are opened when classes are moving and radiators are adjusted to regulate the temperature and provide fresh air, when needed; in the elementary grades, the same procedure is followed when classrooms are vacated for recreation and lunch periods.

**Workshop area.** All classrooms have some project area. In three schools (Central Grammar, Garvin, and the high school)
this space is somewhat limited due to the large size of present enrollments; two of these buildings have movable furniture which allows flexible arrangements for group activities. In the high school where one teacher may have the use of the same room all day, the individual teacher supervises the adjustments necessary in that classroom; if workshop area is needed in a room used by more than one teacher, rearranging may be done through the cooperation of the teachers involved. In the grades, group work is carried on in areas made available by the rearrangement of furniture in the various classrooms under the direct supervision of the teachers.

The new building and improvement programs, already begun, are expected to eliminate the crowded conditions which exist at the present time. Hence, adequate workshop area in all schools should be available in the very near future.

Display space. It is difficult to define what display space is sufficient since the needs depend upon the type of teaching and the nature of the learning activities which take place in each classroom. If interviewed, each teacher might present a different picture of this factor in the local schools. The writer interviewed principals who rated 65 per cent of all classrooms as well adapted. With the probable abandonment of the Ashton and Berkeley schools, ample display surfaces in these buildings should be transferred to classrooms where they are lacking. From the old Cumberland Hill school, unused
since 1955, tackboard should be placed in other buildings, also. If, for some unknown reason, this removal could not be carried out, it would be advisable to "use flexible installations that can be changed readily to increase or decrease the area of display facilities or to use dual purpose installations." Either or both of the methods advocated by the National Education Association should well supply the display facilities necessary in all classrooms in this school system. These are: (1) the use of swinging chalkboards and bulletin boards which consist of a number of wings or leaves which can be turned at will; (2) the use of counter balanced chalk and bulletin boards that can be raised to expose additional chalk or bulletin board areas.

Storage space. At least two-thirds of all classrooms have ample storage space; twenty rooms are either poorly adapted or not adapted at all. Edgemere, a three-room building, lacks such space in every classroom, but a large closet in the main corridor could be better utilized to provide the storage area necessary to meet the needs of this small school. Storage space 18 inches deep, 40 inches long and 24 inches

---


high, will usually be sufficient for a single room. Termed as lacking in Central Grammar School, such space could be easily acquired by the better utilization of present storage spaces in this school's corridors. In the high school, pupil enrollments, present and predicted, prevent alterations within classrooms for provision of storage facilities. Physical features of the upper and lower hallways of the old section of this building offer adequate space where storage of materials could be conveniently located. Depending on teacher, subject, or materials to be stored, spaces might be assigned in any of the following ways: (1) for general storage needs of a teacher or certain teachers; (2) for specific curriculum materials such as maps, charts, posters, collections, etc.; (3) for storage of materials to be used in specific classrooms. Thus, these areas should contain shelves where posters, maps, and the like are to be kept; drawers for miscellaneous materials and supplies; and space for temporary storage of audio-visual equipment assigned to a particular room.

**Summary.** Consideration of the above factors is required if full utilization of all types of equipment and materials essential to modern teaching and learning is to be realized. Since optimum value will result from the use of audio-visual

---

aids in the regular classroom environment, the eventual goal should be the provision of adequate physical facilities in all classrooms. In Cumberland the following plan should be beneficial to the audio-visual director in trying to solve some of the problems, concerning such factors as light control, insufficient electrical outlets, storage and display space.

Actual use being made of equipment as well as the interest, attitude, and effort of individuals toward instruction with audio-visual materials should definitely cause the director to modify any plan for the provision of physical facilities. Hence, expenditures for equipping of all classrooms in which little or no use of these aids will be made, should better be utilized for the procurement of additional equipment and materials in greater demand in specific classrooms or schools.

During the first year (or before) of the program, provisions should be made as follows:

1. Acquisition of at least one set of portable opaque shades for Central Grammar, Community, Cumberland High, Cumberland Hill, and Edgemere.
2. Installation of 12 electrical outlets in 12 classrooms where they are now lacking.
3. Transfer of display surfaces from abandoned buildings to Central Grammar and Edgemere.
4. Better use of hallway storage areas in Edgemere and Central Grammar; alterations to wasted corridor areas in the upper and lower hallways of the original section of the high school.
In the succeeding years the main problem will be light control in the various schools. Provision for this facility might be made as follows:

Central Grammar School (5 rooms)

Each Year for 5 years: drapes for one room.

Sixth year: Replacement of shades by drapes in three classrooms.

Community School (4 rooms of new addition)

Fourth year: drapes for one room.

Each year for the following three years: drapes for one room.

Cumberland High School (10 classrooms)

Second year: shades for 2 rooms of old building and drapes for 1 room of new building.

Third year: shades for 3 rooms of old building.

Each year for the following three years: drapes for 1 room of the new building.

Cumberland Hill School (10 classrooms)

Each year for ten years: drapes for 1 classroom.

Edgemere School (3 classrooms)

Third year: shades for 2 classrooms.

Garvin Memorial School (4 classrooms)

Second year: shades for 2 rooms.

Fourth year: shades for 2 rooms.

Two things do seem to be important. First, to achieve anything worthwhile, audio-visual administrators must analyze what they have, where they are and then plan for tomorrow and the years after. Second, if their planning is a cooperative enterprise, they should share their findings and experiences so that all may benefit from their
comments and criticisms and perhaps encourage them to look ahead and try new materials and methods. Good audio-visual materials and methods do not happen -- planning makes them possible.

PURCHASE AND SELECTION OF EQUIPMENT

The responsibility for selection of equipment should be shared by administrators with the teachers who are expected by them to use the equipment. The practice of selection by administrators is widespread and results in teachers feeling little obligation to use the equipment selected for them.

Procedure for selection. The director of the program and teacher committees, working together, are responsible for the careful selection of equipment. A plan which might be successful in this town should include:

I. The Director's Role.
   A. Study of descriptive information of the equipment offered by various reliable manufacturers.
   B. Consulting those experienced in using the types of equipment to be considered, especially if such use included situations similar to those in the local school system.
   C. Narrowing down the number of selections, as in the case of 16mm. sound projectors: Ampro, Bell and Howell, R. C. A.
   D. Selection of the committees of teachers with sound judgment, interest, and teaching experience.

---

20
Harcleroad and Allen, op. cit., pp. 36-7.
II. The Role of the Teacher Committee.
   A. Attendance at equipment demonstration by dealer(s).
   B. Appraisal and evaluation of each type of equipment, using a rating sheet supplied by the director.

III. Final Selection.
   A. Determined by the director from the evaluations by the teacher committee.
   B. Some factors to be considered, in addition to those included in the evaluation:
      1. Size of groups for which equipment will be used.
      2. Number of teachers and pupils in each school.
      3. Available funds.
      4. Potential use.

**Evaluation form.** A check list, provided by the director, is extremely helpful in securing comparable information from the teacher committee. This form indicates specific factors to be rated by a definite method. Figure 11 illustrates this type of appraisal instrument. Various texts contain rating scales which directors might use or adapt for use in their particular localities. The following form was made by the writer after extensive study of numerous instruments.
FIGURE 11. EQUIPMENT RATING SHEET

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date shown</th>
<th>Place</th>
</tr>
</thead>
</table>

Please encircle appropriate numbers for rating this equipment:
1 - outstanding; 2 - superior; 3 - good; 4 - fair; 5 - poor.

<table>
<thead>
<tr>
<th>1. Ease of threading</th>
<th>1 2 3 4 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Accessibility of lighting controls, etc.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Elevation device</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Illumination</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Sound</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>a. tone</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. range</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. adaptable to classroom</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. adaptable to auditorium</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Absence of operation noise</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Ventilation or cooling system</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. Simple rewind</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. Ease of maintenance</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>a. oiling</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. cleaning</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. Durability</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>a. the equipment itself</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. the case</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. Portability</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

REMARKS:
Recommended allocations of equipment. Basic equipment requirements have been listed as follows:

16 mm. Sound Projector: 1 per 300 or major fraction thereof.

Filmstrip-Slide Projector: 1 per 200 or major fraction thereof.

Opaque Projector: 1 per building.

Screen: 1 per each two classrooms.

Record Player: 1 per five classrooms or at least 1 per building.

Tape Recorder: 1 per 300 or major fraction thereof.

Radio: 1 per five classrooms or at least 2 per building.

Adapting the foregoing list to the proposed plan for Cumberland, the following recommendations are made for the individual schools and additional equipment needed is indicated.

1. Cumberland High School - 555 pupils.

<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Projector</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Filmstrip-Slide Projector</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Screen</td>
<td>4</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Record Player</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Cumberland Hill School - 363 pupils.

<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Filmstrip-Slide Projector</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Screen</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Record Player</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Filmstrip-Slide Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Screen</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Record Player</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
4. **Central Grammar School - 293 pupils.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Filmstrip-Slide Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Screen</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Record Player</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

5. **Community School - 270 pupils.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Available</th>
<th>Recommended</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Filmstrip-slide Projector</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Screen</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Record Player</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

The other schools have enrollments ranging from 82 to 140 and classrooms ranging from 3 to 5. With the exception of a radio-phonograph combination, most equipment is lacking in all of these small buildings. Some compromise arrangement is necessary, since pupils and materials shall be transferred to other buildings due to the new construction planned. For
the present, a filmstrip-slide projector should be supplied for each two buildings; one screen should be provided in each school. Other more expensive equipment would have to be shared among the schools until actual use of equipment would demand otherwise. Table VII was designed as a summary of the additional equipment necessary to fulfill the recommended allocations for the basic equipment needs in the individual schools.

**TABLE VII**

**ADDITIONAL EQUIPMENT NECESSARY TO MEET RECOMMENDED ALLOTMENTS TO SUPPLY BASIC NEEDS IN INDIVIDUAL SCHOOLS**

<table>
<thead>
<tr>
<th></th>
<th>Sound Projector</th>
<th>Filmstrip Projector</th>
<th>Opaque Projector</th>
<th>Screen</th>
<th>Record Player</th>
<th>Tape Recorder</th>
<th>Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumberland High</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cumberland Hill</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Garvin Memorial</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Central Grammar</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Community</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other Schools</td>
<td>1*</td>
<td>1</td>
<td>2</td>
<td>5**</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4</strong></td>
<td><strong>4</strong></td>
<td><strong>4</strong></td>
<td><strong>23</strong></td>
<td><strong>7</strong></td>
<td><strong>5</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

*One of these small schools possesses a new 16mm. sound projector.

**Same school has a screen.**
Naturally, the director should not plan to provide all this equipment in the first year of the organized program, but determine how such equipment may be acquired during that time by making plans of purchase over a five-year period. In the section, Financial Considerations, detailed plans for the purchase will be outlined. Once the program has been inaugurated, desirable equipment goals may be altered due to such factors as the training, experience, and interests of the teachers and other personnel, the availability of other materials to be used with the equipment, the acquisition of equipment from other sources such as the P. T. A., and the type of instructional program in the various schools.

**Procedure for the purchase of equipment.** The final selection of equipment should be determined by the director from the evaluations of the teacher committee. He makes the decision after he has considered the equipment in relation to: possible frequency of use, curriculum needs, long-term effectiveness, low obsolescence, and availability from other sources. In regard to the latter, three P. T. A. organizations are presently planning to raise funds for providing some type of audio-visual equipment for three schools.

The director has the responsibility for purchasing the desired equipment. Expenditures for the acquisition of the basic equipment should be made on a gradual scale within a five-year period for two important reasons: (1) part of the
appropriations necessary at the outset must be used to improve existing physical facilities; (2) replacing of equipment now available and new equipment will not be necessary at the same time.

SELECTION AND PURCHASE OF MATERIALS

In any audio-visual program, the interests and needs of the pupils are always the first consideration. No one person is capable of determining what materials will best meet the needs in all areas of the curriculum. The cooperation of everyone concerned with the curriculum is necessary. The audio-visual director should take the lead in planning and carrying on a program of evaluation and selection of materials, similar to that for the selection of equipment.

Teacher committees should be called upon to attend previews and auditions of materials for the purpose of evaluating the materials. To perform this function, they should be provided with specific criteria for the various kinds of materials. In this town, the proposed plan requires utilization of motion pictures, filmstrips, slides, records, and tape recordings. The questions listed here should be useful in the selection of such aids.

1. Do the materials give a true picture of the ideas they present?

22 Dale, op. cit., pp. 77-83
2. Do they contribute meaningful content to the topic under study?

3. Is the material appropriate to the age, intelligence, and experience of the learners?

4. Is the physical condition of the materials satisfactory?

5. Is there a teacher's guide available to provide help in the effective use of materials?

6. Is the material worth the time, expense, and effort involved?

Other factors to be considered should include: probable use of the material, whether its relation to the curriculum is basic or supplementary, and how easily and economically it may be obtained. The budget allowed for the audio-visual program will determine whether materials will be rented or purchased.

In Cumberland, the selection and purchasing of filmstrips and records for the existing equipment should be considered in the immediate plans of the program. Since tapes and motion pictures can be easily procured from the State Department of Education, Department of Audio-Visual Aids, in Providence, their purchase should be excluded from the immediate plans of the director. These materials may be obtained free of charge, with postage paid, and used for a one-week period. The filmstrips and records to be purchased in the proposed plan should be acquired for the various curriculum areas, rather than for one specific subject for a particular grade level.
FINANCIAL CONSIDERATIONS

No business can plan effectively for its immediate and future needs without a financial blueprint. The audio-visual department is no exception. With the value of audio-visual instructional aids constantly being emphasized, planning and remodeling school buildings and not providing such curricular tools is like constructing factories and not planning for the necessary machinery.

Educators agree that budgetary allowances should be in proper relation to those for other teaching materials, and should be a regular part of the total school budget. Budget practices and allotments vary considerably, but there appears to be a definite tendency toward increasing the expenditures for audio-visual materials. However, in this town, the school department provided over $2,000 for these materials for a new school in 1955; no such amount has been allowed for any school or the school system as a whole at any other time.

Per-pupil expenditure. Various studies indicate that budgets calculated on a per-pupil basis are more convenient than compilations on a per-teacher basis. It has frequently been suggested that one per cent of the annual per-pupil cost

should be used as the minimum operating figure. In Cumberland, this allowance would result in a $2.00 per-pupil amount. This expenditure is similar to that in Southbridge, Massachusetts, a town with a population of 17,000.

The present pupil enrollment is approximately 2500. Hence, a $2.00 per-pupil expenditure would total $5,000 as the minimum operating budget for the audio-visual department in Cumberland.

Preparation of the budget. At the outset, budgetary appropriations must be based upon opinions and approximations. The experience of one year will dictate the amount to be requested the following year. In this town, financial considerations must include allotments for improving physical facilities of classrooms, providing the basic equipment, and acquiring materials to accompany that equipment. These allowances may be expected to decrease as desired goals are realized.

The National Education Association has suggested apportionment of the audio-visual budget as follows:

- Purchase of equipment: 35%
- Purchase of materials: 35%

Ibid.

Desroches, op. cit., p. 168.
Rental fees for materials 14%
Maintenance of equipment and materials 10%
Production of materials 1%
Other operating expenses 5%

With the total budget of $5,000, the following amounts could be provided:

Purchase of equipment $1750
Purchase of materials 1750
Rental Fees for materials 700
Maintenance of equipment and materials 500
Production of materials 50
Other operating expenses 250

$5000

Since initial appropriations must be made for improving the physical conditions of some classrooms, principally by adding opaque shades and some electrical outlets, provisions for such must be included in the budget. Any audio-visual program encompasses a number of schools and classrooms with various individual properties. To meet the needs of the program, there must be a graduated scale of long term expenditures, based on the minimum materials necessary in each building and classroom for conducting an adequate program.

In determining the budget, the first step consists of
finding out the outstanding needs of the program. In Cumberland, the following have been indicated:

**Physical Facilities:**
- Opaque shades for 16 rooms
- Opaque drapes for 23 rooms
- 12 outlets for 12 rooms

**Equipment:**
- 3 16 mm. sound projectors
- 7 Filmstrip-slide projectors
- 4 opaque projectors
- 22 screens
- 5 tape recorders
- 7 record players
- 6 radios

**Materials:**
- Filmstrips
- Records

At the present time, certain P. T. A. groups are planning for future projects which include an opaque projector, a filmstrip projector, and a record player. Hence, purchase plans must be altered as these materials are contributed to the program. Such plans must also be modified when use of materials indicates otherwise.

With a budget of $5,000 for the audio-visual department, the director might follow this plan:

**First Year**

**Physical Facilities:**
- $2600
  - Purchase and installation of shades or drapes in 5 rooms
  - 12 electrical outlets

**Equipment:**
- $1150
  - 1 sound projector
  - 2 filmstrip projectors
  - 6 screens
  - 3 record players
  - 1 tape recorder
Purchase of materials:  $900
  Filmstrips and records
  (Films obtained from State Library free)

Rental fees, postage  250

Maintenance of materials  100

$5000

Second Year

Physical Facilities:  $2500
  Shades and drapes

Purchase of equipment:  $1250
  1 sound projector
  2 filmstrip projectors
  1 opaque projector
  5 screens
  1 tape recorder
  3 record players

Purchase of materials  750
Rental fees, postage  250
Maintenance of materials  150

Miscellaneous: Public relations, books for center, simple production materials  100

$5000

Third Year

Physical Facilities:  $2500
  Shades and drapes

Purchase of equipment:  1250
  1 sound projector
  2 filmstrip projectors
  1 opaque projector
  6 screens
  1 tape recorder
At the beginning of the fifth year, all basic equipment will have been purchased and more than half of the classrooms been provided with darkening facilities. Budgetary planning then should consist of the following:

- Acquisition of shades or drapes for 18 rooms.
- Replacement of equipment.
- Purchase of materials.
- Production materials.
- Continuous maintenance and repair.
Each year the director must submit to school authorities a detailed plan of what he considers to be necessary to carry on an effective audio-visual program. It then becomes a major responsibility of the superintendent of schools to make sure that the school committee understands the functions and values of audio-visual materials. He must emphasize the fact that providing these aids does not make teaching easier, but results in making teaching and learning more meaningful.

THE AUDIO-VISUAL CENTER

In any school system, the instructional materials center is an important means of improving learning experiences for pupils and adults of the community. It is a resource center of teaching tools, materials, and ideas, the means by which the efficient and smooth functioning of the audio-visual program may be facilitated.

Location of the center. The most logical place for the center is at the high school in this town. Following the method by which notices and materials are circulated to every building from the superintendent's office, audio-visual carriers or messengers could reach every school by the school buses which carry pupils to and from all sections of the town. The high school is used for teacher's meetings and is within 500 feet from the post office. Since space is rather limited in this building, the center might well be
combined with the present library.

**Housing.** The space to be allotted to the center, combined with the library, is approximately 500 square feet. The library and the center might be arranged as indicated in Figure 12. This space might suffice the needs of the center in the first years of the organized program. An area of 300-400 square feet is considered adequate for a school of 600-1200 pupils.

**FIGURE 12**

A SUGGESTED ROOM ARRANGEMENT FOR THE AUDIO-VISUAL CENTER AND THE SCHOOL LIBRARY; 500 SQUARE FEET OF FLOOR SPACE.

Audio-Visual Center    School Library

Key to above diagram on page 90.

---

26 Planning Schools, No. 3 Classrooms, *op. cit.*, p. 33.
### Audio-Visual Center

| A | Files for cataloged materials and equipment |
| B | Director's desk |
| C | Professional library |
| D | Chalkboard |
| E | Conference table |
| F | Periodicals, pamphlets, mimeographed information, including source lists of free and inexpensive materials, etc. |
| G | Display area |
| H | Bulletin board for notices, lists of new materials, etc. |
| I | Work table for inspection, shipping, maintenance, repairs |
| J | Storage for special charts, posters |
| K | Storage for filmstrips |
| L | Storage for slides |
| M | Storage for records and recordings |
| N | Storage for additional equipment |

### School Library

| 1 | Reference books |
| 2 | Librarian's desk |
| 3 | File |
| 4 | Magazine and newspaper shelving |
| 5 | Stacks |
| 6 | Reference table |
| 7 | Low shelving under windows |

**Activities and services of the center.** In the proposed plan, the audio-visual center will not be organized until the second year of the program. Previewing and auditioning, production of materials, and storage of most of the equipment will take place in the individual schools. With space for the center so limited, the activities and services provided by the center will be limited, also. The initial duties of the director will include important steps toward the development of a well-planned center. Among his functions in the first year of the organized program will be:

1. Cataloging and organizing materials for use.
2. Setting up a file of current sources of materials and equipment.
3. Devising an ordering and booking system which is simple and consistent.


5. Keeping records of maintenance, use, etc.

6. Beginning a professional library.


On this foundation, the audio-visual center can really become the means by which the efficient and smooth functioning of the entire program may be facilitated. Continuation of the above functions, with continuous revising, improving, and growth, can aid in establishing the center as a service agency, a resource center for teaching tools, materials, and ideas by which pupils can be provided with good learning experiences.

The services of the center, when organized by the director, should include, in addition to those previously indicated:

1. Stimulating and assisting teachers in making the most of instructional materials.

2. Supplying advisory and informational services to school personnel and to local community groups.

3. Assisting curriculum-planning committees.

4. Providing storage facilities for materials and some equipment.

5. Keeping materials in good condition by inspection and repair.

6. Promoting public relations, both within the school system and the community.
Materials and equipment in the center. All equipment, with the exception of that for the small schools and additional emergency equipment, should be stored in the individual buildings. All materials should be stored in the center where they can be readily classified and cataloged. These materials would include filmstrips, slides, records, and recordings. Other materials, as maps, flat pictures, models, and the like should be stored in the individual schools, preferably in the classrooms where they would be of greatest use. Special charts and posters might be located in the center, if space permits.

On occasion, groups have participated in field trips. No record of possible trips or those already taken have been made available to other interested groups. The audio-visual center should take the lead in establishing a community resource file, especially when the possibilities are so numerous and other instructional materials are lacking.

DISTRIBUTION

Skilled supervisory personnel, adequate financial support, and good in-service training programs are not sufficient for an effective audio-visual program. Materials must be easily obtained by the intended users. Hence, the orderly flow of materials is of prime importance. As was stated by Sands: "It could be said, without slight exaggeration, that
the ultimate measure of an audio-visual center is the efficiency of its distribution system. Service must keynote the distributive program. Instructional need must be paramount; within practical bounds, convenience to the teacher should be considered above convenience to the department.

Practical aspects of distribution. Well-defined procedures and routines for the circulation of various types of information and materials in Cumberland include pupil messengers, high school students, who travel to the various sections of the town on the school bus. Regulations should allow some flexibility due to the distances between schools and the location of the center. Principals, supervisors, or teachers who live near the center but teach in one of the elementary schools may easily deliver and return materials to and from their respective schools. In each of the ten elementary schools, there is at least one of these persons who passes the high school.

Use of coordinators. Just as certain clerical files and forms are necessary for a well-organized program, specific steps for booking, circulating, requisitioning, and scheduling of materials are necessary, also. The audio-visual director should formulate definite policies for such steps, but he

---

27 Sands, op. cit., p. 523.
alone cannot execute the booking, circulating, requisitioning, scheduling, repairing, and all the other procedures included in the audio-visual program. The backbone of the program lies in teamwork. Each school must have one person who will be responsible for this work; this person will be called the coordinator. In the schools in Cumberland, the principals will be the coordinators.

What is the work of the building coordinators? Actually they serve as the director in the individual buildings. Through them, ordering, booking, scheduling, receiving, and returning of materials in their schools can be efficiently organized so that the proper materials are distributed to the teachers at the proper time and place. Depending upon the physical facilities in each classroom, they may plan the use of certain rooms when audio-visual materials cannot be properly utilized in all classrooms.

Assigning operators so that teachers may devote all their efforts to actual teaching rather than wasting valuable time with the mechanics of audio-visual instruction is an important function of building coordinators. In addition, they should attend meetings called by the director for the purpose of relaying pertinent information to and from teachers concerning audio-visual problems and procedures.

Basically, building coordinators are the key persons in the individual schools where they substitute for the audio-
visual director in the execution of distributive policy.

Forms and records. Standardized forms facilitate the work of distribution and assist in getting the right materials to the proper place at the correct time; records form a backlog of information of great value in making future purchases of rentals, formulating budgets, bringing about more effective utilization, and putting the entire program on a business-like basis. Needless to say, records and reports, limited in number to what is absolutely necessary to the program, should be as concise, comprehensive, and complete as possible, without extensive red tape.

In establishing the program in this town, requisition and evaluation forms, accession, use, and maintenance records, and material and equipment schedules would have to be considered, tried, revised, and finally designed before a definite, smooth-functioning system of distribution could be realized.

The types to be planned are:

1. Those used to secure desired information.
2. Those used to control distribution.
3. Those necessary in the center for the continuation of efficient operation of the entire program.

The following may be suggestive:

a. Materials booking form. This should include the name of the school, the date, the type of material desired, the complete title, the order or catalog
number, and the date wanted. If made in duplicate, orders can be checked, one form returned to the building coordinator to show availability, and the other used for data on an office record card to keep track of materials.

FIGURE 13

**FORM FOR REQUESTING MATERIAL**

<table>
<thead>
<tr>
<th>Cumberland Public Schools</th>
<th>Audio-Visual Department</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEACHING MATERIALS REQUEST</strong></td>
<td></td>
</tr>
<tr>
<td><strong>School</strong></td>
<td><strong>DATE</strong></td>
</tr>
<tr>
<td><strong>Teacher</strong></td>
<td><strong>Grade</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE</th>
<th>No.</th>
<th>TITLE</th>
<th>Date Wanted</th>
<th>Confirmed</th>
</tr>
</thead>
</table>

b. Intra-school schedule. The coordinator should notify the teachers by a "Master Chart" of what, when, and where audio-visual materials and equipment will be used in the building during one week or a month. In buildings, such as the high school, where classrooms with adequate projection facilities are limited, and sizes of rooms and classes vary, a weekly schedule is absolutely required. This form might include the period of time, the
subject, the type of material, equipment, the room, the operator, and the teacher.

FIGURE 14

INTRA-SCHOOL MATERIAL AND EQUIPMENT SCHEDULE

<table>
<thead>
<tr>
<th>Week of</th>
<th>Name of Teacher</th>
<th>Type of Equipment</th>
<th>Title of Material</th>
<th>Day</th>
<th>Room</th>
<th>Period</th>
<th>Name of Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

c. Office record of materials; equipment. This file may well serve as a basis for making periodic reports to teachers, superintendent, and school committee. Included here might be: the name of the school, the aid, order number, date sent and returned, rating. Equipment data should also include maintenance.
FIGURE 15
OFFICE RECORD OF MATERIALS

<table>
<thead>
<tr>
<th>Date</th>
<th>Title of Material</th>
<th>Cat. No.</th>
<th>Del. Ref.</th>
<th>Rating</th>
<th>Subject</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 16
OFFICE RECORD OF EQUIPMENT

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>School</th>
<th>Sent</th>
<th>Ret.</th>
<th>Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. Accession record. Of great value for keeping track of instructional tools, this form should provide information concerning the type of aid, model, manufacturer, when purchased, purchase price, and where stored. This record may assist the director in budgeting money needed for upkeep and purchases of equipment.

FIGURE 17

ACCESSION RECORD: EQUIPMENT

| Name of School | Type of Equipment | Serial Number | Model | Manufacturer | When Bought | Cost | Owner
|----------------|-------------------|--------------|-------|--------------|-------------|------|--------
|                |                   |              |       |              |             |      |        |
e. Evaluation forms. The specific types which may be utilized in this particular situation are: (1) preview forms to be used in the selection of equipment and materials and (2) teacher opinions after classroom use of materials. An example of an evaluation form is illustrated on page 74.

Method of delivery. The ideal method for circulating materials is by a school department truck or vehicle. In Cumberland, this routine may be carried on by student messengers and other school personnel, as previously mentioned. Of prime importance is getting the materials to the teachers at the right time and place. If possible, delivery should be on
a weekly basis, with materials distributed on Monday and returned to the center on Friday. In ordering and circulating, clerical work must be kept at a minimum and a convenient method to provide teachers with requested materials must be established. No audio-visual program can operate efficiently without some form of systemization. Well-planned organization of materials, ease of communication, and avoidance of bottlenecks in the flow of materials characterize successful distribution. Teamwork between teachers, building coordinators, and the central office is essential if the knowledge in these aids is to be brought to the learners.

IN-SERVICE EDUCATION

Selecting materials and carefully testing their effectiveness are important steps in any audio-visual program. Unfortunately, they are only part of the plan of organization. The most extensive accumulation of equipment and materials and physical facilities prove to be worthless when improperly and carelessly used by teachers, untrained in the skillful utilization of them. In-service training can stimulate the growth of personnel as individuals and of the school system as a unit. It provides an end product of enriched opportunities for pupils.

Any new technique in the field of education needs introduction to the profession and a long period of careful
study and training. In Cumberland, audio-visual education is faced with numerous problems involving materials and equipment about which many of the teachers know little or nothing. Few of the present teaching staff have had much contact with these instructional tools and techniques in their pre-service and professional courses, since the majority completed their college courses before World War II when the most powerful stimulus to this type of instruction arose. At that time, a motion picture projector and screen were acquired in one school and films were shown frequently to very large groups. Hence, attitudes have been conditioned by a widespread acceptance of "movies".

Since 1953, Rhode Island College of Education has inaugurated an audio-visual proficiency program in which all the students are required to receive instruction and prove themselves proficient in the operation of equipment as a requirement for graduation. With most of the teachers in the town receiving their preparation at the college, part of the heavy burden of the director may be lifted in the near future in relation to in-service training, since new teachers will have been trained in the use of equipment and they may aid in the training of others.

Factors which contribute to a successful in-service program. The training program will be successful when teachers are awakened to a realization of their own shortcomings
and their efforts for improvement are voluntary. Instruction must be provided and be attractive and diversified. This in-service education program must be a continuous part of the long-range planning of the entire audio-visual program. Factors which should be considered are: (1) providing effective leadership; (2) fitting the program to the needs of the teachers; (3) proceeding slowly; (4) planning for small groups; (5) allowing adequate time; and (6) providing sufficient materials, equipment, and facilities.

Objectives of the in-service program. The most important objective of any training program is familiarizing the teachers with the why of audio-visual materials. From the start, they must be presented with the basic principles and functions of these materials so that they will better understand and appreciate the use of audio-visual materials in the educational program. The second major aim includes assisting them in acquiring certain desirable and necessary technical skills, such as operating the various projectors and preparing the classroom for the use of such equipment. Helping teachers to develop criteria for evaluating these instructional tools and measuring their educational contributions should be the third essential goal of the in-service program. To attain these objectives so that teachers will use audio-visual materials efficiently and effectively, the director will find that working with the teachers, individu-
ally or in small groups, will be necessary. Therefore, the in-service training program must extend over a long period of time and such training must be continuous due to new equipment, materials, and applications of the wide variety of instructional tools.

**Types of in-service training.** One of the most important functions of the director of the proposed plan should be the inauguration and supervision of diversified means of educating teachers in the use of audio-visual materials. No one type has been designated as being more effective than another. No one type should be planned to exclude all others. In Cumberland, the methods listed below might be attempted.

a. **Extension course.** The director may arrange for a course, offered by the Rhode Island College of Education, to be given in town. The course should carry credit toward certification. Of all the devices the director may use to improve teaching in the local schools, this kind of training can provide the most systematic background of knowledge of methods, materials, and techniques.

b. **Workshop.** The use of the workshop, based upon cooperative planning and group participation, has become one of the most popular and effective forms of in-service education to fulfill various curriculum needs. In a short, concentrated program of
this type, teachers can be given the opportunity to work out particular problems, receive individual guidance, and consequently develop a better attitude toward audio-visual materials and techniques. In the proposed plan, ample time may be provided for such special meetings by following the existing practice of dismissing pupils from classes for one or two full days so that teachers may attend the workshop. The responsibility for the program should be centered with the audio-visual director with the assistance of the superintendent of schools, principals, and a teacher committee. Adequate space and enough resources in the form of materials, equipment, and consultants must be provided.

c. Faculty meeting. The general teachers' meeting represents a most significant opportunity for training members of the faculty in the philosophy and practical procedures of audio-visual aids. The director may do this at regular or specially-called meetings. Actually, the director should make use of the faculty meeting to promote the utilization of audio-visual materials.

d. Informal meeting after school hours. The director or the building coordinator should provide individ-
ual or group instruction at an individual school. This type of training differs from those mentioned previously in that it is adapted to more specific needs of individuals or smaller groups in more limited areas. What should be done? When? Where? How? Why? These are the types of questions that must be answered very definitely with particular settings, materials, and pupils in mind.

Teachers participate voluntarily in this form of training which may include production sessions in which they learn by doing and preview or screening sessions in which they may learn what is available or new. Teachers are constantly concerned with individual differences of their pupils; in this type of in-service training, the director is directly concerned with the individual differences of the teachers.

e. Demonstration lesson. Representing one of the best mediums for acquainting teachers with the possibilities and the correct utilization of curricular aids, the demonstration lesson can be used in two ways: (1) it may be presented to the faculty as a

---

group in a particular school; (2) it may be given in a particular classroom during school hours with a regularly scheduled class. The first type may possibly be a sort of staged performance and subsequently lose much of its value; whereas the second kind of demonstration presents more direct assistance to individual problems in a normal setting. By this demonstration, the director may provide help to a certain teacher, who, because of training, experience, subject area, or grade level, requires instruction in the use of a variety of materials or a specific kind of equipment.

f. Bulletins, newsletters and other publications. Enlightening teachers will always be an important part of the director's work if for no other reason than that new devices and new applications of older devices will always be appearing. In addition, new teachers will be continuously entering the school system and will need information concerning the audio-visual department's organization and functions, equipment, materials, routines of requisitioning and handling of materials, and other procedures. These devices should be prepared by the director to reinforce the learning acquired in extension.
courses, workshops, faculty meetings, and demonstrations. Much of the material for these "printed helps" can be obtained from instruction booklets issued by manufacturing companies, descriptive articles in magazines and books, and more or less original contributions by the teachers or the director himself.

g. The audio-visual center. The audio-visual center is basically a service agency. Here teachers may receive help in selection, preparation, and utilization of materials. A professional library, a resource file of possible sources of materials, and additional information concerning available instructional aids should be provided.

Because of his many responsibilities, the director may find it impossible to handle all the teaching details of this in-service training. There may be persons in the system who are especially competent in the utilization of particular aids and such interest and ability should be capitalized in instruction. Such a plan may not only add variety to this training, but it may also mean an added appeal because of personal contacts and relationships of these instructors with fellow teachers. Regardless of the method, the in-service education of teachers is not something that just happens; it must be well-planned and continuous.
A well-balanced audio-visual program is one that enriches the educational offering of every grade level and every subject. Such a program does not just grow up by itself; it must be carefully nurtured. . . . it will not be built without competent builders. When considered from this point of view, the need for a capable director, an audio-visual committee, suitable equipment and materials, and adequate housing, irrespective of the size of the school (system), should be apparent. To provide less is to condemn this department to mediocrity or failure before it is even started. 29

The need for more extensive group demonstration and for more intensive training of individual teachers further justified the desirability of delegating the responsibility of the audio-visual program to one or more persons in each school (system) to organize and supervise an effective teacher training program. 30

**Student operators.** In either the high school or the elementary schools, student operators can make a major contribution to an improved instructional materials program, by making it possible for teachers to spend all their time teaching their pupils instead of dividing their attention between the class and the equipment. Direct responsibility for the projectionist group should rest with the audio-visual director and his building coordinators. Operators should be carefully selected, trained, and given some type of reward or recognition for their services. They should be organized from the fifth or sixth grade through the high school in order

30 *Dent, op. cit.*, p. 171.
to give continuity to the program.

The selection of the student operators should be left to the principals with the assistance of the teachers in the upper grades in the elementary schools and the home room teachers in the high school. They should be selected on the basis of interest in the work, good work habits, dependability, courtesy in working with other people, and knowledge of the equipment and the fundamental skills of communication.

In the initial stages of the training program, student operators should be instructed by the director or certain teachers in the various schools who have had experience and training in the mechanical aspects of audio-visual materials. This small group of projectionists may then serve as the senior members in the student operators club in each school in which new members may be trained in the operation of equipment, minor maintenance, proper handling, procedures to be followed, and distribution of materials within the building, as well as service to such groups as the P. T. A., if necessary. Thus, student operators play an important part in the audio-visual program.

COMMUNITY RESOURCES

Teachers are constantly confronted with the problem of deciding upon the best means of presenting instruction to groups of pupils with varying experiences, needs, abilities,
and interests. Tapping some of the community resources, both material and human, can facilitate the teachers' efforts to enrich instruction. There is general agreement that the potential of field trips is great, but that actual utilization of them is relatively small. Such is the case in Cumberland.

A successful audio-visual program would not be complete without organized effort to utilize community resources in the following ways:

1. Development of a resource file of people in the community who can and will come into the classrooms to share their unusual abilities, experiences, or special training.

2. Development of a reference or "browsing" file of free and inexpensive curriculum materials to assist the teachers and school staff in the selection and acquisition of those of real value in teaching and learning.

3. Preparation of an extensive field trip directory in cooperation with teachers, study groups, and an educational field trip committee.

4. Enlisting the aid of community organizations in securing useful teaching materials.

An important responsibility of the audio-visual director in this town should be to organize and supervise the above activities so that the community and the classroom may be brought closer together when learning-situations are provided.

---

through which pupils come into contact with their immediate environment by means of field trips, resource persons, or materials brought into the classroom from the community.

To be of value, the use of community resources must be wisely conceived and profitably capitalized. All details must be thought through, evaluated, selected, used, followed up, and again evaluated. No one person or group of teachers in a short time can determine the complete data of every available resource which might be suitable or adaptable to different levels of instruction as well as various subjects in the curriculum. Hence, in the long range plans of the audio-visual program, the director should organize special groups who might cooperatively endeavor to compile particular information. One such group might concentrate on surveying those resources available for use in enriching the social studies program or the science program. Information obtained must then be analyzed and indexed. In the file for field trips, such data may be classified under such headings as where to go, what to see, what to do, and how to follow-up; details concerning resource persons may be listed in a similar file.

Means of obtaining data. A simple community survey may be made to find out what community resources can be made available for use in helping to give pupils a richer realistic educational program. The first step might include a letter
with an accompanying questionnaire distributed to parents for the purpose of identifying possible field trips and resource visitors. The combined efforts of special committees, school principals, and the audio-visual director may then reveal the results of the survey by compiling the information and making it available to the teachers. The next step should be the accumulation of more specific details by individuals or small teacher groups so that more complete data can be provided. Hence, the files for field trips and resource visitor can become a valuable asset in the audio-visual program.

The following details may be important in connection with field trips and a well-planned form or report should include them.

1. Name of place to be visited:
2. Address:
3. Person to contact:
4. Telephone number:
5. Objective:
6. Nature of guide:
7. Travel details:
8. Visiting days; hours:
9. Available literature or other teaching aids:
10. Thing to see:
11. Things to do:
12. Observations en route:
13. Size of group:
14. Age of pupils permitted:
15. Suitable for subject or unit:
16. Hazards:
17. Rest room facilities:
18. Lunch arrangements:
19. Arrangements with school authorities:
20. Cost per trip:
21. Evaluation:
22. Follow-up activities:

The following details may be important in relation to the use of resource visitors and data on file might include the following:

1. Name:
2. Address:
3. Telephone Number:
4. Subject of discussion:
5. Available literature of other teaching aids:
6. Special demonstration:
7. When available:
8. Time needed for discussion:
9. Group which might benefit most:
10. Suitable for subject or unit:
11. Evaluation:
12. Follow-up activities:
Such details present an effective means by which teachers can properly correlate and integrate a specific community resource with a specific learning situation. Needless to say, a few well-planned trips or visits by resource persons as indicated above will be of much value than many with hazy objectives and little relation to the curriculum. Carefully cataloging and filing this material for reference, the director can assist teachers in bridging the gap between life in and out of school, in encouraging a continuity of learning, and in developing understandings, attitudes, and appreciations of their students by giving them increased experiences with real things.

PUBLIC RELATIONS

One of the duties of every audio-visual director is to assist the school administrators in educating the community to the values of his department. The school system is organized and administered by a school committee and a professional staff, but, basically, that system is of, by, and for the community. A community which supports the audio-visual program enthusiastically and willingly provides the necessary budget for that program. Obviously, enlightenment that brings intelligent community interest and demand is fundamental.

The director might utilize any or all of the following channels to disseminate information concerning the audio-vis-
ual program:

1. The pupils who carry the "word" home about a field trip or film and consequently parents see tangible results in the interest of their children.

2. School officials who, from time to time, may hold demonstrations and conferences to show P. T. A. groups and the like what can be done with motion pictures, filmstrips, slides, models, records, and other materials.

3. Open house and parents' night programs at which these materials can be utilized.

4. Newspaper articles by which the public is informed of especially good auditorium programs based on audio-visual principles, a field trip, or any other news of the audio-visual program.

In a word, a program of audio-visual education costs money, and financial support will never come until the community is "sold" enough on it to be willing to pay for it. The administrator must do this selling. 32

CONCLUSIONS

The enduring future of audio-visual aids to learning lies in its close relation to the curriculum of our schools and the more effective training of teachers in the use of audio-visual materials. The term "aids" suggests that of

32 McKown and Roberts, op. cit., p. 563.
themselves these materials will not teach or supplant the teacher; they can only aid in teaching. Unless more complete coordination is effected between the existing audio-visual materials, facilities, and classroom instruction, the present interest in audio-visual education will not continue. In this study, the possibilities for an audio-visual program were critically examined and numerous detailed suggestions were made for the development of an organized program. A summary of these specific recommendations follows:

1. That a well-qualified person be appointed by the school committee to serve as a full-time audio-visual director.

2. That specific duties and functions of the director be assigned by the superintendent of schools.

3. That all classrooms in the public schools of Cumberland be equipped with adequate physical facilities as soon as possible.
   a. That immediate attention be given to the light control problem by provision of opaque shades or drapes in the various classrooms.
   b. That flexible installations for display purposes be added where needed.
   c. That storage room be provided in three schools where it is lacking.
   d. That the ventilation problem in over 60 per
cent of the classrooms be more carefully studied and corrected.

4. That a yearly budget of $5000 which allows a $2.00 per-pupil expenditure be provided for the audio-visual program.

5. That teacher committees and the administrators, working together, be responsible for the selection of equipment and materials.

6. That the audio-visual director be responsible for making the final selection and purchase of equipment.

7. That new audio-visual equipment be purchased each year until necessary requirements are fulfilled.

8. That selection and purchasing of filmstrips and records be considered in the immediate plans for the program.

9. That an audio-visual center be established at present in the high school and serve as a resource center for materials, service, and advice in relation to audio-visual problems.

10. That well-defined procedures for distribution of materials be established.

11. That building coordinators be utilized in each school for the execution of audio-visual policies which have been formulated by the director.
12. That a program of in-service training for teachers in the use of audio-visual materials and equipment be inaugurated by the director and that this program be well-planned and continuous.

13. That student operators be selected and trained to assist teachers in the instructional materials program.

14. That a directory of community resources be developed cooperatively by the contributions of pupils, parents, individual teachers, teacher committees, principals, and administrators.

15. That promotion of public relations be utilized which will lead to understanding and financial support for the audio-visual program by the community.

All things being considered, Cumberland has the potential for a dynamic and functional audio-visual program. Planning and recommending each important segment of such a program results in a waste of time, effort, enthusiasm, and interest unless the plans and recommendations are considered and adopted. The writer feels, however, that it is only a matter of time until an organized audio-visual program becomes a reality — a properly administered and supervised program that will contribute to the improvement of teaching and the enrichment of learning in the public schools of Cumberland.


Planning Schools for Use of Audio-Visual Materials: No. 1

Planning Schools for Use of Audio-Visual Materials: No. 3
The Audio-Visual Instructional Materials Center.


The School Administrator and His Audio-Visual Program.


APPENDIX
SURVEY TO DETERMINE THE FACILITIES FOR AN AUDIO-VISUAL PROGRAM IN THE PUBLIC SCHOOLS IN CUMBERLAND

School

No. of Teachers       No. of Pupils       No. of Classrooms

I. Physical Facilities

A. How many rooms in this building have:

1. Electrical outlets?    Ave. No. per room     Located near front side, or back?

2. Darkening facilities?  Adequate? Yes ___ No ___ Easy to operate? Yes ___ No ___

3. Means of proper ventilation?

4. Movable furniture?     Fixed furniture?

5. Satisfactory acoustics?

6. Ample storage space?   Easy of access?

7. Adequate workshop area?

8. Sufficient display space?

9. Other

B. The approximate size of most rooms: ______ (lxw).

C. The seating capacity of most rooms: ______.

D. Does your school have a special audio-visual room? Yes ___ No ___

E. Does the building have an auditorium? Yes ___ No ___

F. Can audio-visual equipment be satisfactorily used in the auditorium?
   Yes ___ No ___

Suggestions:

II. Audio-Visual Equipment

Does the school own any equipment to improve instruction? Supply complete details when possible. If exact data is unknown, give approximate data.
<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Model</th>
<th>Serial Number</th>
<th>Manufacturer</th>
<th>When purchased</th>
<th>Original cost (if known)</th>
<th>Condition: good, fair, poor</th>
<th>C.O. &amp;</th>
<th>Source</th>
<th>Where stored</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. mm. projector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filmstrip projector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide projector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filmstrip-slide proj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opaque projector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tape recorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portable radio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonograph Speed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rewind and Splicer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
III. Materials

Does your school own any of the following materials which may be used for instructional purposes? Please indicate by supplying the details listed below. If unknown, give approximate data when possible.

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>Cond.</th>
<th>Grade or Age Level</th>
<th>Subject Use</th>
<th>Source</th>
<th>Owner</th>
<th>Where Stored</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16 mm. films</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>slide-films</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>slides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>special charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>working models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>specimens, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sets of exhibit materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>spare parts for equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>