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An investigation of the availability and utilization of audio-visual materials in general music classes in selected Maryland Public Junior High Schools

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AN INVESTIGATION OF THE AVAILABILITY AND UTILIZATION OF
AUDIO-VISUAL MATERIALS IN GENERAL MUSIC CLASSES IN
SELECTED MARYLAND PUBLIC JUNIOR HIGH SCHOOLS

A Thesis
Presented to
the Faculty of the School of Fine and Applied Arts
Boston University

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

by
Yevola Ruth Smith

August 1957

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THESIS APPROVAL

This thesis, written under the supervision of the candidate's Advisory Committee, and approved by its members, has been presented to and accepted by the Graduate Board of the School of Fine and Applied Arts of Boston University in partial fulfillment of the requirements for the degree of MASTER OF MUSIC with a major in

MUSIC EDUCATION

Robert D. Choate

Dean

November 25, 1957

Date

W. L. Wessiman

Department Chairman

November 25, 1957

Date

Advisory Committee:

Jack Lemons

W. L. Wessiman

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

The importance of using audio-visual materials and techniques as teaching aids is constantly being realized by educators. This fact is shown through increasing appearances of investigations of audio-visual materials for specific subject-matter areas. In the field of music education, the majority of such studies is concerned with the use of specific mechanical devices necessary for music instruction. This study is concerned with investigating the extent to which junior high school general music teachers realize the values of using instructional aids in teaching music effectively to a heterogeneously grouped class. Specifically, this investigation deals with collecting and analyzing data which indicates the availability, extent of use, and formulated values of specific audio-visual materials in general music classes of selected Maryland Public Junior High Schools.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study (1) to ascertain the availability of audio-visual materials to general music programs in selected Maryland Public Junior High Schools; (2) to indicate the extent to which specific materials are used; (3) to present teachers' attitudes with

regard to the values derived from the use of audio-visual materials and techniques as a result of experiences; (4) to investigate audio-visual materials which are recommended for use in junior high schools; and (5) to compare materials which the survey shows are currently being utilized with those recommended and available for use.

Importance of the study. The general music class is the heart of the junior high music program. This theory is advanced by Dykema and Gundiff. (5:372) They further advocate that the general music program is

. . . that combination of activities which is mainly responsible for the attitude and performing ability of students when they leave the public schools. The taste for music acquired in the junior high school to a great extent influences what students will desire and elect in the senior high school. . . . Both because these classes usually enroll all students and because the material included in the course covers practically every aspect of music study, they are frequently designated as general music classes.

The general music program of the junior high school should provide for every student the opportunity of participating in directed musical activities, regardless of his previous musical experience. The Junior High School Committee of the Music Educators National Conference gives the following reason for recommending that general music classes be required at this level:

Adolescent pupils, who are immature and at their most impressionable stage, need the guidance and exploratory experiences of general music classes to help develop their

musical ideals which will carry over not only into the high school music program, but throughout adult life. (16:105)

The success of the general music program depends upon teachers' abilities to communicate efficiently and effectively with every student. This communication demands individualized instruction for the purpose of meeting the individual needs of adolescent boys and girls. Gruhn and Douglass express the point that audio-visual materials ". . . are particularly appropriate in the junior high because they appeal to almost every interest of young adolescents." (9:192) "Furthermore," state Gruhn and Douglass, "the young adolescent frequently has a greater interest in things that can be seen or heard than he has in the printed page." (9:192) To make it possible for junior high students to develop an understanding of and appreciation for good music, it is necessary that music teachers be resourceful in the utilization of all available materials that can aid in individualizing instruction.

A major development in education is the growing concern for effective utilization of audio-visual materials as teaching aids. Wittich and Schuller (24:1-13) have traced this development from the beginning of the twentieth century to the present. The importance of using such materials for music instruction has been emphasized by many music educators. This is indicated as a result of the formulation of the Committee on Audio-Visual Aids for Music Education by the Music Educators National Conference.

It has been suggested that

The many recent developments in the field of audio-visual equipment, and to a lesser extent in audio-visual materials, have been remarkable. The interest of music educators has been most gratifying with requests for information revealing an understanding of its utility value in music teaching. (16:216)

Extending this realization further into specific areas, the Music in American Education Committee on Junior High School Music states in its report,

It is hoped that in the future, junior high music teachers may be supplied with proven usable advice, and materials that have been recommended by successful people actively engaged in teaching junior high school music. It is suggested that attention be given to . . . encourage further additions to the recommended lists of junior high materials. (16:107)

Although a limited number of studies have been conducted on audio-visual materials for music education, there are evidences of studies which reveal uses for and values to be derived from using specific materials for teaching music at different grade levels. An important factor determining the use of these materials is the accessibility of materials. This idea is confirmed by Burton and Brueckner. They recommend that

In studying the use made of visual aids, attention should be given to such matters as the extent of use being made of these aids, the use being made of community resources in instruction, and the kinds of aids accessible. (1:441)

Some important issues in this connection concern the following:

(1) Are music teachers in a given situation fully realizing the availability of instructional aids? (2) To what extent are administrations providing necessary tools for effective music

instruction? (3) To what extent are music teachers utilizing available materials? Wittich and Schuller say,

An effective program of classroom-centered audio-visual instruction begins in the classroom, and the teacher is the one who guides it. Hence any investigation of audio-visual instructional techniques must begin by examining his role and the teaching procedures he employs. (24:505)

Since the availability of materials does not necessarily insure their effective use, a need prevails for studies concerning the values of specific materials, as established through the experiences of junior high general music teachers. Investigations of the use of audio-visual aids in music instruction, or any other subject area, must be kept up to date. This assures a valid determination of the quality and values of instructional equipment.

A survey and analysis of the problem of junior high school music revealed that one of the most important problems, according to junior high school music teachers and college music educators, is that of providing for individual differences, or, in terms of main categories, the problem concerning techniques of teaching. (16:108) Through committee investigations and individual research, generally accepted objectives and recommendations have been established for using a variety of audio-visual materials in confronting this problem. Realizing that the availability of materials is an important factor in determining their use, and that effective use depends upon the guidance of the teacher, this study was made to ascertain the availability and utilization of audio-

visual materials in a given situation, namely, the general music classes of selected Maryland Public Junior High Schools.

II. DEFINITIONS OF TERMS USED

Audio-visual materials. Throughout the report of this investigation, the term "audio-visual materials" will be used interchangeably with "instructional materials." Both terms are defined as assistant devices in providing enriched musical experiences for junior high students. These types of aids are visual and audio materials, such as bulletin boards, posters, and recordings.

Audio-visual equipment. This term shall be interpreted as indicating the mechanical apparatus used in providing audio-visual experiences for students. An example of this is the motion picture projector.

Audio-visual techniques. The connotation of this term refers to methods or procedures of teaching which explain or illustrate ideas. The process used is that of providing concrete evidences through direct and vicarious experiences.

III. SOURCES OF DATA

Sources of data include (1) responses to questionnaires sent to general music teachers in selected Maryland public junior high schools, (2) published articles and reports of the

Audio-Visual Aids Division of the Music Educators National Conference, (3) related studies in unpublished Master's theses, (4) published audio-visual departments' reports from different states, (5) books and periodicals on audio-visual materials and techniques, and (6) books and other readings pertaining to music instruction in junior high schools.

IV. ORGANIZATION OF REMAINDER OF THE THESIS

Chapter Two presents a discussion of related investigations. Chapter Three gives an over-view of general principles for utilizing audio-visual materials. Chapter Four is concerned with explaining the methods used for studying this problem and presenting the findings. Chapter Five presents the data compiled concerning the audio-visual materials and techniques used in general music classes of selected Maryland Public Junior High Schools, the extent to which specific materials are used, and teachers' attitudes toward the values of audio-visual materials and techniques as a result of experiences. Chapter Six, the final chapter, presents a condensed restatement of the developments of the previous chapters. It shows important findings and conclusions of the study, based on analyses and comparisons of current practices found in the given situation with the generally accepted objectives, as suggested by the

Music Educators National Conference, the National Education Association, recorded experiences of other music educators, and recommendations made by audio-visual source companies.

CHAPTER II

HISTORICAL BACKGROUND AND RELATED INVESTIGATION

Teaching through audio and visual aids may be traced through the history of mankind. However, it has been during the past thirty or forty years that educators have carefully scrutinized the role of audio and visual materials in the improvement of instruction. As a result of such interest, a vast amount of research on audio-visual materials and techniques, as aids to effective teaching, is appearing in areas related to teaching and education. This chapter is devoted to presenting a historical background of the development of the audio-visual concept in education, and to recount studies which are related to this investigation.

I. HISTORICAL BACKGROUND

Instruction through audio-visual methods may be traced through the educational history of mankind. In primitive times, communication of ideas was executed through expressive gestures and cries of alarm or passion, such as the lower animals make. (23:20) Learning took place through imitation, observation, and, as McClusky states, "participation correlated with the necessary language explanations." (14:28) Graphic signs were invented for symbolizing events and making the most abstruse ideas tangible. Eichler related that primitive man achieved a

conquest over time, for he became able to transmit by written word, though a crude system of writing, the record of his thoughts and deeds to "remote posterity." (8:16) From all indications, the earliest records of man were picture records.

The audio-visual concept in education appeared in early Greek and Roman teaching procedures. McClusky reveals this idea as he states, "The early Greek and Roman teachers utilized the school journey, the sand as a blackboard and real objects in their instructional procedures." (13:28) The field trip was of great importance in their educational system. Carroll states,

The Greeks developed intellectual instruction in which object materials were used in teaching history and civic ideals. Drama was used to shape moral and political attitudes, music to create moods, and art to commemorate historical and religious events. (13:23)

During the years of the fifth through the fifteenth centuries, which historically denote the Middle Ages, the church provided education. Religious lessons were taught to the people through the use of frescoes, statues, carvings, and marionettes. (17:161)

The Renaissance period featured the use of puppets in popular instruction and for entertainment. Woodcuts, etchings, and engravings were forms of visual aids. Italy fostered the revival of learning through the recovery of long-buried treasures of the classics and through providing means for their study. With the aid of the printing press, scholars in Germany, France, and England continued the intellectual movement and gave it

widespread currency. (23:241) Emphases were placed on the scientific revival through which a new scientific method evolved; i.e., the scientific method which rested on observation and experiment. (23:244)

Famous educational leaders stressed the importance of visual-sensory instruction. Johann Amos Comenius (1592-1670) is considered as one of the forerunners of modern education, particularly because of his advocacy of using visual-sensory instruction. He is credited with being one of the first educators of prominence in Western civilization to make practical use of visual aids, pictures, in teaching. He believed that the teaching of words and things must go together, that languages should be taught by topical conversation, and pictures and objects should be used.

Many of his works on education were published, including his most influential book emphasizing visual concept in education, the "Orbis Pictus," World in Pictures. Kinder and McClusky present the following quotation taken from the preface of the Eleventh English-Latin edition published in London in 1728.

Let it ("The Orbis Pictus") be given to children into their hands to delight themselves withal as they please, with the sight of the pictures, and making them as familiar to themselves as may be, and that even at home before they be put into school.

Then let them be examined over and anon (especially now in school) what this thing or that thing is, and is called, so that they may see nothing which they know not how to name, and they can name nothing which they cannot show.

And let the things named them be shewed, not only in the picture, but also in themselves; for example, the parts of the body, clothes, books, the house, utensils, etc. . . .

Let them be suffered also to imitate the Pictures by hand, if they will; nay rather, let them be encouraged that they may be willing: first, thus to quicken the attention also toward the things; and to observe the proportion of the parts one toward another, and lastly to practice the nimbleness of the hand, which is good for many things.

Things rare and not easy to be met withal at home might be kept ready in every great school, that they may be shewed also, as often as any words are to be made of them, to the scholars.

Thus at last this school would indeed become a school of things obvious to the senses, and an entrance to the school intellectual. (13:28-29)

Parker lists among the principles advocated by Comenius the following:

1. A graduated series of textbooks and illustrative material should be provided as an absolutely necessary means for improvement in instruction.
2. At first subjects should be presented orally by the teacher, and pictorially illustrated where possible.
3. Actual objects and things should be studied first, and language in connection with such study. (18:143)

Another advocator of visual-sensory instruction was the famous educational leader, Jean Jacques Rousseau (1712-1778).

Parker points out that Rousseau was influenced by the great English scholar, John Locke (1632-1704), who maintained that "education should be practical and playful." (18:193)

Rousseau's ideas of instruction were based upon sense perception and active observation. He advocated that learning-situations should be varied experiences with natural objects through first-hand contact and manipulation. Rousseau was a very influential figure which affected the ideas expressed by Pestalozzi.

Pestalozzi (1746-1827) described, in a systematic manner, Rousseau's concepts of the importance of experimentation, effective reasoning, and constructive work with the observation of natural objects. He created a technique of oral instruction. Vindicating this idea, Pestalozzi writes,

In Europe the culture of the people has ended by becoming an empty chattering, fatal alike to real faith and real knowledge, an instruction of mere words and outward show, unsubstantial as a dream, and not only absolutely incapable of giving us the quiet wisdom of faith and love, but bound, sooner or later, to lead us into incredulity and superstition, egotism and hardness of heart. . . . Everything confirms me in my opinion that the only way of escaping a civil, moral, and religious degradation, is to have done with the superficiality, narrowness and other errors of our popular instruction, and recognized sense impression as the real foundation of our knowledge. (18:324)

Other educational leaders, such as Herbart and John Dewey, studied the problem of making the work of the school meaningful. Froebel (1782-1852), Herbart (1776-1841), and others of the early pioneers in education, discussed the fundamentals of using concrete aids to learning, stressing the field trip, or, as termed by some educators, the "learn from nature" idea.

The Oswego Movement, which took place about 1860, emphasized the idea of utilizing the nature study field trip and other related object teaching methods. (7:676) Edward A. Sheldon (1823-1897), Superintendent of the Oswego Public Schools, was an enthusiast in the nature study phase of the object teaching method. As a result, the Oswego Movement

developed. Ely states,

With this new and vital idea, Oswego became the hot-bed of educational progress. The enthusiasm of its students was boundless, and the new method was carried by them to all parts of the country. (7:677)

With the expansion of mass education, it became difficult to provide each child with first-hand experiences and development. Therefore, educational needs for the solution of teaching problems became an awareness to educators. It became a generally accepted concept of educators that, as Corey explains,

All of the words that boys and girls hear or read or use derive their meaning ultimately from perceptual experiences. It makes no difference how abstract or how simple the word is, its value as a tool, as a means of interpreting or controlling experience, depends upon the percepts from which it is derived. In the degree that the pupils and the teachers do not have a common perceptual background, the words that are used to communicate meanings are little more than noises or interesting black marks on a piece of paper. (22:5)

Media of sound and silent motion pictures, stereographs, and other types of objective representation evolved from these educational needs. McClusky gives an account of the development of audio-visual instructional methods. He says,

Whereas schools of the past used audio-visual materials to a limited degree, modern science and invention have opened unlimited possibilities in the organization of concrete materials for teaching purposes. The invention of the photograph and of photo-engraving have given use photographically illustrated magazines, newspapers, books, and school texts of high quality. A teacher with a pair of scissors and files of magazines and newspapers has at her disposal and unlimited supply of pictures for use in the classroom. All modern texts contain illustrations. (13:30)

Within the past fifty years, a great medium of communication and system of making records have developed, namely, the motion picture. This device has become a principal factor in modern life, for it is used for the dissemination of information, knowledge, and ideas, for the development of attitudes, and as a medium of entertainment. It is widely believed today that "the motion picture will advance knowledge and that it should become one of the school's most valuable teaching devices."

The radio, sound reproduction, and television are other media which science has added to modern methods of communication. McClusky relates,

Through these media, schools may tune in on the world's events as they occur, may listen to the best music and to the spoken words of the world's great leaders in all fields of human endeavor. And when television becomes more practical, school children will be able to not only listen to world events, but to see them as well. Already the radio is being used to extend the influence of the lecture, of music and of the drama to school and home, to office and factory, to the church and hospital, and to the prison and those who are remote from centers of civilization. (13:31)

Through these media of communication in our educational program, it is indeed possible to effect the kind of teaching which the early leaders advocate, as mentioned above. The present situation presents problems of defining these intriguing instructional possibilities in school procedures.

II. REVIEW OF THE LITERATURE

Audio-visual materials have presented a new force to classroom instruction. Research is verifying the great influence of audio-visual materials on educational method. Research studies carried on in audio-visual techniques may be grouped into three general types, as listed by Wittich, namely,

1. Surveys into the status of audio-visual programs in selected cities, counties, and states.

2. Historical and philosophical studies leading to proposed optimum plans and procedures for instituting new programs of audio-visual education for cities, counties or states.

3. A continuation of investigations into the utilization and learning outcomes of audio-visual methods and materials. (13:333)

Wittich and a graduate seminar group investigated the tendency in contemporary research during the school year 1950-51, as evidenced by graduate studies of those in the field of audio-visual educational areas, and specialization. Twenty-eight theses were studied. Of this amount, Wittich found that these studies covered areas of audio-visual administrative organization, teacher training practices, and utilization. They were completed in universities from coast-to-coast. (13:333) Since then, the number of research studies has increased tremendously, still covering areas pointed out by Wittich.

Through investigating studies related to the one at hand, it was found that a limited number of studies concerned with surveying the availability of audio-visual materials for music

education was available. Therefore, the following discourse on related investigation will not only include the few studies pertaining to music education, but also similar studies in other subject or administrative areas.

In 1950, Lee reported the findings of a survey which was designed to determine the status of audio-visual instruction in the Rhode Island Public Schools, with regards to the organization, administration, and the supervision, coordination, and use of audio-visual aids in the schools. (44) A portion of this investigation was primarily concerned with studying the actual use of audio-visual materials in specific subjects offered in sixty-one secondary schools. The subjects included were English, foreign language, guidance, science, social science, health and physical education, fine arts, manual arts, domestic science, mathematics, commercial, and music.

Through a questionnaire study, Lee concluded that the most widely used audio-visual aids in music classes of Rhode Island public junior and senior high schools were bulletin boards, pictures, posters, and prints. The blackboard ranked next. It was found that about forty-three per cent of the sixty-one schools used motion pictures; forty per cent used records and transcriptions. To a lesser degree, the following aids were utilized: school journeys, objects, models, specimens, charts, maps, silent motion pictures, and radio. Slides and opaque projections were indicated as not being used at all.

In the same year that Lee conducted his study, 1950, See and Hear presented a final report of a nation wide mid-century survey to determine the service that various state departments of education are offering to schools and teachers in their states. A summary of audio-visual problems facing classroom teachers and problems challenging audio-visual educators and workers was given. The problem ranking highest, or of most concern, was that of providing better means of getting equipment and materials into the classroom of every teacher. The second ranked problem was the need for better preview evaluation and selection means through which teachers could actually participate in the process, and thus automatically gain first-hand experiences with the materials. The report states, "This will provide teachers to gain confidence in the use of the materials, and knowledge of the potentialities of their use in the improvement of learning problems." (28:147)

The problem which was listed third was the need to acquire easier and more simplified modern equipment, particularly in the field of sound film. It was reported that

Large numbers of our schools own the heavier, outmoded types of projection equipment, of either pre-war or earlier vintage, and are in need of replacements from among the many new lightweight and other improved types of motion-picture, filmstrip, and opaque projectors. (28:147)

The fourth problem was the need for better teacher-training. This is needed so that the teacher will become familiar with the materials of instruction in the fields of his subject major so

that he will come into the school equipped with a thorough knowledge of the existence and content of many of the same materials which will be needed in classroom work.

The problem ranking fifth on the list was the need for some means of more carefully authenticating materials in terms, not only of content, but in the degree to which the characteristics of the medium, whether it be sound motion picture, map, chart, filmstrip, or recording, are exploited or taken advantage of as a learning problem is approached. It is stated within the report that

Many reactions refer to the mass of inadequate materials, many of which are too inferior even to merit the attention of teachers. This expresses the need for a higher degree of coordination between producers and existing course of study content and also participation in the evaluation, selection, and finally the addition of materials into school study materials libraries. (28:149)

The sixth problem was the need for active audio-visual public relations program through which audio-visual materials, their use and their role in general education, may be brought to the attention of the community. The committee reports,

Because of the community today being such a complex social organism, the usual parent or lay person has little opportunity to know what is going on in school, and unless concerted effort is made to bring to the attention of the lay person the information about the values of a program of audio-visual education, there is less chance for broad public support being given it. Parent teacher groups offer one of the best avenues, now too little traveled. (28:149)

The problem ranking last, supported by practically all of the state departments reporting, was that of the need for a greater budget. (28)

In 1954, Kelley (43) did a study to revise the findings of the See and Hear Survey. It was found that the distribution of audio-visual materials by state audio-visual units was in the direction of branch libraries or financial assistance to counties or local communities in starting their own libraries of teaching materials. This provided teachers with means to work closely with the audio-visual department in obtaining what materials are needed in specific situations. Kelley also found that more and more states are offering recommendations to schools in their states on the use of motion picture films, the purchase of audio-visual equipment, and the proper construction of school buildings for audio-visual utilization.

In 1951, Scogin conducted a survey of the use of audio-visual materials in teaching instrumental music in Texas. (45) He was interested in finding out what audio-visual equipments were available for use by the instrumental music teacher in representative Texas Public Schools, determining the extent of use of the available equipment, and surveying the representative choices made by instrumental music teachers with regard to audio-visual materials. Scogin's survey concluded the following:

1. Non-mechanical materials ranked highest in the tabulation of audio-visual materials used most frequently, with bulletin board, posters, charts, and instrumental demonstrations leading.
2. Recorder and phonograph ranked highest among mechanical aids.
3. Neither phanoscope nor television is used frequently by any of the schools.

4. On an average, junior high schools have a greater amount of audio-visual equipment than do other types of schools. Schools which contain the elementary, junior, and senior high levels all in one plant rank second in this comparison. (45:72)

Jaffe conducted a study, in 1952, of secondary mathematics teachers' preferences of methods and techniques in classrooms. (42) Seventy selected secondary schools of Massachusetts were surveyed. Through the questionnaire responses of the fifty eight schools responding, teachers indicated strongest preferences for the lecture, with discussion recitation, supervised study, and laboratory following respectively. The majority of the educators considered teacher demonstration, a teacher centered lecture type activity, "always," or "frequently" valuable. The teacher explanation, lecture type, ranked next. Fifty-two per cent indicated that taking a field trip to museums or factories is seldom worth the time.

It was interesting to note that teachers indicated limited desire to use motion pictures, filmstrips, or lantern slides. Teachers with more experience favored the use of visual aids less than newer teachers. Jaffe states,

Most of the teachers in this study feel that such visual aids as moving pictures, filmstrips, and lantern slides are of limited value in mathematics classrooms. This may be a reflection on the small number of quality visual aids that these teachers have seen. . . . Although recent years have brought more variety in teaching methods, the traditional lecture and recitation remain high on the preferred list. (42)

One very recent related investigation is a study conducted by Creedon (40) in 1956. Creedon conducted a survey of the

availability of audio-visual aids for the teachers of the Worcester, Massachusetts Public Schools. The purpose of this study was

To present the results of a detailed investigation and research into the audio-visual educational services which would be readily available to any classroom teacher in the city of Worcester, Massachusetts, for the enrichment of the curriculum and the stimulation of the pupil, both motor and cerebral, resulting in a steady growth of learning. (40:1)

Of the sixty-seven schools of Worcester, four are junior high schools, four are senior high schools, one is a vocational school, and the remaining fifty-eight are elementary schools. The city has established an audio-visual aids department, which provides the necessary audio-visual materials requested by the teachers of these schools.

According to Creedon's study, the audio-visual department provides films, filmstrips, and slides, of which only two of the films listed in the directory of materials are music education films, namely, "The String Choir," and "The Woodwind Choir." This limitation of music education films is mainly due to the limited request for materials by the music teachers. It was specifically stated that no schools owned films. The Worcester Art Museum was found to be a major source for providing activities for the study of Humanities.

CHAPTER III

BASIC PRINCIPLES OF USING AUDIO-VISUAL MATERIALS

Research has justified the use of audio-visual materials and techniques as teaching aids. Studies of the psychology of audio-visual aids, as related to the teaching-learning process, show that these materials are effective for arousing and stimulating interest and attention, a major necessity for the learning process. (19:569) McKnown and Roberts express a similar point of view in the following statements:

An important function of the use of audio-visual aids in the high school is to arouse curiosity about extensions, other applications, and further developments that provoke continued and additional mental activity that is pertinent. An aid that completely satisfies a felt need and does not incite to this additional mental activity is an aid that has been incorrectly and incompletely utilized. (15:470)

Research has shown that audio-visual aids are helpful to the democratic approach to teaching, an approach that is explained by Sands as being ". . . a balanced view that takes into full account the needs of the learners . . . and the demand of society for competently reared citizens-to-be." (21:19) Sands further states,

Audio-visual procedures harmonize with the democratic approach, because they are an answer to its implicit requirement that the choice of teaching materials and methods be kept flexible and responsive to the needs of the taught-not their theoretical needs, but their actual, empirically determined ones. (21:19)

Research has also shown that the values of using audio-visual materials as teaching aids depend upon how effectively

they are utilized. Corey explains that every teacher, irrespective of the level on which he teaches, makes decisions and acts in three important areas, namely,

. . . he must have clearly in mind the kinds of pupil behavior their instruction should bring about, he must choose and devise learning experiences that will bring about this maturity, and he must develop techniques for finding out whether or not the desired learnings have occurred. (29:395)

Experimental studies of the use of audio-visual aids indicate that a variety of factors determine the effectiveness of the use of instructional aids. Burton and Brueckner have listed these factors as follows:

1. The purpose for which they are used.
2. The age and background of the children or group using them.
3. The type of materials studied.
4. The skill and method of presentation.
5. The authenticity of the materials.
6. The influence of the teacher. (1)

Although the accessibility of materials is an important factor determining their use, the availability of these materials does not necessarily insure their effective use. This chapter is designed to present established basic principles governing the efficient utilization of audio-visual materials in junior high general music classes, as well as other subject area classes.

I. IDENTIFYING OBJECTIVES

Before selecting and planning the use of instructional materials, the teacher should identify specific goals of instruction. He should have clearly in mind the kinds of pupil

behavior desired and work toward these objectives.

In the junior high school general music class, the following aims, as established by Dykema and Cundiff, may be considered.

1. To provide all junior high school students with an exploratory or orientation course which will help them to see how music may have a worthy place in their lives, individually and socially, and will help them to decide what future music study would be successfully desirable for them to undertake.

2. To increase immediate pleasure in music by extending the scope of the material with which the students might normally come into contact as well as material which, except for the schools, they might not meet, in both performing and listening.

3. To guide the use of their voices during the period of change and adjustment.

4. To strengthen the desire to obtain greater technical command of music by demonstrating uses of it which are desirable for the students both now and in the future. This is to include a knowledge of necessary musical terms and notations.

5. To demonstrate the possibilities of instrumental study, as far as possible to allow the students to experiment with actual instruments, and, as a result to enroll a large number of the students in some playing group.

6. To increase and strengthen with music the interrelation of school, home, and community and thus to develop a better concept of the place of music in life, and a spirit of social service. (5:374)

In planning and using audio-visual materials for providing experiences relative to the above formulated objectives, the types of learning as distinguished by the psychological processes should be constantly considered. McClusky defines four general types of learning applicable to using audio-visual materials and techniques. (14:23-26) The following brief discussion is concerned with these general types of learning.

The Sensory Motor type of learning is characterized by development of skilled muscular coordinations. Music education adheres to this type of learning through providing such activities as singing, playing, and rhythmic responses.

The establishment of associations between symbols and meanings characterizes the Associative type of learning. An example of this type of learning found in music education is in learning to read music.

The Reflective Thinking type of learning involves "felt difficulty, suggestions for solution, testing out the suggestions, and resolving the difficulty by arriving at a conclusion." (14:26) A broad background of perceptual experience is basic for this type of learning. Audio-visual materials may be used for stimulating desirable and needed perceptual experience. (24:24) The reflective thinking type of learning in music education may be shown through providing experiences for growth in "musical insight," which may be defined as the capacity to identify, understand, and deal with the elements of the tonal rhythmic pattern in terms of their intrinsic logic and their expressive values.

The Appreciative type of learning concerns developing appreciations and attitudes. One of the aims of the junior high general music class is to provide experiences which stimulate an appreciation for good music on the parts of the adolescents.

McClusky says, "Appreciative learning is largely emotional in nature." (14:26) Such audio-visual materials and techniques as dramatizations, recordings, motion pictures, slides, and radio may be very effective in teaching attitudes and appreciations.

II. SELECTING MATERIALS

Learning experiences should be chosen and devised on the basis of promoting desired outcomes. Kinder and McClusky included first in a list of guiding principles for using audio-visual teaching materials the principle of selecting teaching aids ". . . on the basis of whether or not they seem to have potential educational significance toward meeting specific objectives." (13:47) Gruhn and Douglass continue this advocacy through the following statement: "Audio-visual materials should be selected and their use planned in terms of the particular contribution they are to make to the objectives of the unit being studied." (9:192)

Some factors to be considered in selecting audio-visual materials are listed by Wittich and Schuller. They are

1. Accuracy and authenticity of the information.
2. Suitability for the grade level in terms of vocabulary, pace, and general understandability.
3. Mechanical excellence of sound, vocabulary, color, and other general "see and hear" factors. (24)

Some of the purposes for using audio-visual materials are (1) to clarify difficult materials; (2) to stimulate pupil interest in classwork; (3) to introduce or summarize a unit of

study; (4) to present information not as readily available in other sources; and (5) to correlate learning experiences in school with real-life situations outside the school. Selecting and using materials should be organized with such purposes clearly in mind. Using too many audio-visual aids will confuse the pupils, just as giving them too few will give them a lack of understanding.

McClusky states that materials should be selected in terms of the following:

1. The needs, abilities, and interests of the pupils.
2. The furtherance of educational objectives and the aims sought in the local course of study.
3. The relative cost of the aid. It is unwise to select an expensive type of audio-visual aid when a less expensive type would serve as effectively, if not better.
4. The resources of the local environment. (14)

The functions of each instructional material should be considered for the selection of specific materials. The following comments present a brief discussion of the function of specific audio and visual materials suitable for the general music program of the junior high school.

A. VISUAL AIDS

Repetitive Devices. Repetitive devices are those items which have been accepted and are repeatedly used. Such devices are blackboard, or chalkboards, bulletin boards, or tackboards, and felt, or flannel board. The function of these devices is to

serve as a medium upon which ideas and illustrations can be recorded and viewed by the entire class at the same time.

Pictorial Flat Materials. The functions of pictorial flat materials are (1) to present visualization of items to be analyzed; (2) to provide methods of presenting quick and inexpensive illustrations; (3) to attract attention and arouse interest; (4) to illustrate certain concepts; and (5) to show relationships such as comparisons, developments, processes, classification, and organization. Some pictorial flat materials useful in the junior high music education program are posters, charts, maps, flash cards, diagrams, and flat pictures. All of these items can be used as motivational devices, reminder devices, and devices to establish a conducive atmosphere for the learning process to function adequately.

Three-Dimensional Materials. The functions of these materials are (1) to help make the learning situation more real, life-like, and interesting to students; and (2) to provide creative activities. Models, mock-ups, dioramas, objects, and puppets and marionettes are considered as three-dimensional materials.

Still Projected Materials. Still projection makes possible group examination of individual pictures and illustrative materials for as long as needed for teaching purpose. The functions of these materials are (1) to provide opportunity for previewing

new materials by a large group; (2) to supplement and enrich materials presently in use; (3) to motivate interest; (4) to present an effective medium for the animation technique of the movies; and (5) to show and define various types of equipment and processes. Still projected materials and equipment are slides, filmstrips, tachistoscope, opaque projector, which projects such items as flat pictures, book illustrations, musical scores, drawings, tests, such objects as strings, reeds, parts of instruments, and fabrics, and the stereographs. Advantages of projected materials are listed by Roggensack as follows:

1. Projected images are more attention-focusing than pictures, charts, or blackboards.
2. They provide a pleasant variation to the usual classroom procedure.
3. They can be seen by everyone at the same time.
4. They utilize the great mass of available material.
5. They enlarge and transfer illustrative materials. (20:38)

B. AUDIO AIDS

Records. Records are devices which present information through audio-imagery. The function of such a device is to increase reality, interest, vividness, authenticity, and learning situations.

Recorder. The recorder is a device containing a microphone pickup which changes sound waves into electrical impulses. The functions of this audio-aid are (1) to record performances of pupils in order to help improve their situation, as well as

for analytic purposes; and (2) to provide continuous performances in excerpt style in order to present specific materials at specific times.

Radio. The radio is a system of wireless communication. Its functions are (1) to present auditive means through which students can explore things, ideas, and places; (2) to present a system of learning about widening horizons; (3) to present a means of classroom broadcasts to give pupils radio participation experiences; (4) to bring carefully planned experiences to students; and (5) to present demonstrations and performances for auditory purposes. This device presents learning experiences in which pupils participate with interest and profit.

C. AUDIO-VISUAL MATERIALS AND TECHNIQUES

Sound Motion Picture Film. The 16 mm film is a series of still pictures snapped at twenty-four exposures per second. The function of the film is to present auditive and visual recordings of the social and national environment of man so as to create realistic, life-like situations which will serve to stimulate conscious learning by students.

Television. Wittich and Schuller explain the television as being

. . . a means of converting a scene into an electronic image. This image is sent through space, picked up on an antenna,

and translated into the original scene on the surface of a picture tube or, to use the correct name, kinescope. (24)

A function of television is to present an eye and ear presentation of numerous situations. Fusion of visual and audio sensations offers opportunities to verbalize about certain things in creating valuable learning demonstration experiences. Television is a medium by which the pupils are transported to important places not feasible for field trips. This device offers possibilities of participation, reality, authority, and emotional appeals to individuals.

Dramatizations. Dramatization may be defined as the acting out of situations in real life or fiction. In music instruction, its function is to provide situations for planning, directing, and performing in order to become intimately familiar with specific studies. Dramatizations also present opportunities for creative thinking and acting.

Demonstrations. Demonstrations are techniques of showing, or explaining, or illustrating through processes the use of real examples. The functions of the demonstration technique are (1) to clarify facts or ideas, and (2) to present first hand information.

Field Trips. Field trips are learning situations through which pupils come in direct contact with, and an awareness of,

their environment; they are planned visits to places of interests. The functions of field trips are (1) to present opportunities for gaining realistic, accurate, truthful understandings through experiences; (2) to create and enliven interest; (3) to encourage and develop keenness of observation; and (4) to encourage active participation on the parts of all.

The Music Educators National Conference's Committee on Audio-Visual Aids in Music Education has presented some criteria for selecting audio-visual aid equipment. This discussion may be found in Music In American Education. (16:230) Before presenting these criteria, the Committee states,

A major part of recent thinking about audio-visual aids and investigations of the field as it pertains to music education has been centered around the use of films, recordings, radio, and television. As more use is made in the classroom and special music room of audio-visual aids in teaching, and as a diversity of equipment is becoming available, there is an increasing need to select equipment of proper specifications and quality. For this is particularly true in the field of music, where "presence" of picture and sound, and fidelity of reproduction are paramount. In general, the adequate reproduction of music means that equipment used in the classroom should be as nearly as possible like that used in professional work. (16:230)

From the preceding discussion, it may be concluded that the basic criterion of a good selection is that the selected materials be accurate in detail and interesting enough to command the students' attention. It must be remembered that the chief function of audio-visual aids is to clarify the subject which a child is studying, thus, making it essential to combine

factual veracity and stimulating presentation as a basic criterion of selecting materials.

III. UTILIZATION OF MATERIALS

Preparation for Presenting Materials. A foundation should be established for the pupils before presenting materials. This idea may be called "preparation of students." All instructional materials used in the classroom by the teacher are used to help make the learning situation more meaningful to every student. Therefore, the pupil must be prepared for presentation of any audio-visual material. Concerning this matter, Gruhn and Douglass state,

They should be given sufficient background to understand the materials; they should see their relation to the unit being studied; they should know the points to look for in the presentation; and, if possible, they should make some application of what they have learned. (9:191)

Unless the students understand the importance of each aid in connection with the study, and are prepared before-hand, these aids may prove of little or no worth to the teaching-learning situation. Schreiber and Calvert reply,

Before the film is shown, or the recording played, the teacher will find it helpful to list on the board or in a mimeographed sheet the "points to look for," or "to listen for." In the case of audio tools-radio programs, transcriptions, and recordings-the students may not be accustomed to listening for information. Before using the aid as part of the regular class activities it might be helpful to have a few warm-up sessions in which students are given an opportunity to practice critical listening. In any case, the "points to listen for" must be clear to the student. (22:33)

Presentation of Materials. In presenting materials, it should be remembered that the effectiveness of the aids are dependent upon the effectiveness of the instructor in presenting them. Haas says,

Effective use of audio-visual aids in learning requires a skilled instructor, who will use appropriate audio-visuals for his particular subject at the right time and in the right way. In other words, he will personalize his audio-visual instruction. (10)

All materials to be used for a specific lesson should be planned and be in readiness before class time. All materials should be previewed, and at the time of presentation, they should be readily available. Gruhn and Douglass state, "Time for presentation of material should be well planned and economically used." (9:193)

IV. EVALUATION OF MATERIALS

Audio-visual materials should be evaluated for their effectiveness in order to improve their use. Haas (10) lists some criteria for measuring their effectiveness. They are

1. Student reactions and increased learning efficiency.
2. Participation and interest evidenced by all other instructional personnel concerned.
3. Identified deficiencies that have been overcome.
4. Composite rating obtained from tests--objective or performance.
5. Cooperation of parental and all other outside personnel concerned.
6. Total cost.

Burton and Brueckner list the following methods which can be used to appraise instructional aids:

1. Observations may be made of the ability of the pupil to use the aid.
2. Evidence may be secured of the extent of the contribution which they make to meanings and understandings.
3. A study may be made of pupil interest in the aid and attitude toward it.
4. The extent of use made of the aid by teachers and pupils is an important consideration.
5. The reactions of pupils of different mental levels can be checked during lessons.
6. The authenticity of the information should be checked.
7. Tests and examinations may be given after their use to discover how much has been learned.
8. Aids may be rated by means of check lists and rating scales. (1)

Dale suggests series of questions that may be used in evaluating audio-visual materials. They are

1. Do teaching materials make those who use them more critical-minded?
2. Do the audio-visual materials give us a true picture of the ideas which they present?
3. Does the material contribute meaningful content to the topic under study?
4. Is the material appropriate for the age, intelligence, and experience of the learners?
5. Is the physical quality of the audio-visual materials satisfactory? (4)

Audio-visual materials must be evaluated according to the specific situation in which they are used. What may be effective in one situation may prove not to be effective in another. Therefore, each teacher is responsible for using the most effective aid for his situation.

Summary. The audio-visual plan for instructional purposes must be simple, practical, educational, effective, personalized, interesting; it must have scope; it must be adaptable to the school's facilities and be enthusiastically supported by administration and staff. Materials of instructional nature are means to an end--a desired change in pupil behavior being the end. The teacher is responsible for determining exactly what types of instructional materials or situations will aid in reaching this end.

Hazards can be avoided by practicing good utilization. First, the teacher must select appropriate instructional materials and become familiar with them, while at the same time, have objectives in view. Next, the pupils must be physically and intellectually prepared in order to profit from these planned experiences. Third, the environment must be conducive for these experiences to be meaningful. Fourth, related follow-up activities must be provided. And finally, an evaluation of the effectiveness of the learning experience must be taken from all practicable points of view.

The following is a list of guiding principles, as established by Kinder and McClusky. (13:47)

1. Audio-visual materials are most effective when closely correlated with the established course of study or curriculum.

2. Select teaching aids on the basis of whether or not they seem to have potential educational significance toward meeting specific objectives.
3. Remember that most people have five senses. Utilize as many as possible in your teaching.
4. Audio-visual materials will not supplant the text-book or teacher, but will supplement and increase their effectiveness.
5. Select other supplementary teaching materials in addition to the one you consider basic.
6. The most effective use of audio-visual materials is that in which they are treated as any good teaching materials are handled. The mere exposure of children to audio-visual materials will not by some mysterious process teach them. Teachers must prepare students for audio-visual materials in advance and check on them afterwards as they would if they were using good printed materials or texts.
7. A few pat illustrations are better than a score or more or less related ones.
8. The inherent nature of audio-visual materials, namely their concreteness, makes it imperative that they be excellent in quality, authentic and accurate.
9. Locate in a picture the major center of interest; observe each feature separately; strive for an orderly analysis.
10. Stimulate interest and direct responses so that they lead to student creative activity.
11. Aim at providing for correct inferences and reflective thinking on the part of the students.
12. Expensive audio-visual aids should make accessible in the classroom that which is otherwise inaccessible.
13. No one type or class of audio-visual materials should be used to the exclusion of others.

14. Audio-visual instruction should not be considered as being confined to teaching skills and building information and facts. It has demonstrated value in creating attitudes, motivating behavior, and in developing morale.

These basic principles may be used in the junior high general music program as well as any other areas and levels of educational instruction.

CHAPTER IV

METHOD OF PROCEDURE AND GROUP STUDIED

The general purpose of this study was to investigate current practices and trends in the use of audio-visual materials in general music instruction in selected Maryland Public Junior High Schools, and to compare these current practices with the national recommended practices. In an effort to secure sufficient data to make a thoroughly comprehensive investigation of the former, the questionnaire method was used. This method imposed certain limitations, for only a general idea of the extent to which specific materials are used could be formulated, rather than the specific extent to which they are used, and the specific ways in which they are used. Therefore, the survey was mainly concerned with the availability of materials and the general extent to which materials are currently being utilized. The following discussion presents an explanation of the group participating, and the techniques used in obtaining and analyzing information.

I. THE QUESTIONNAIRE

In constructing an adequate questionnaire to use in this investigation, the following factors were considered, as clearly explained by Burton and Brueckner. They say,

The question should be clearly stated so that there will be no doubt about their meaning. It is often desirable to include check-questions, so that there will be a check on matters about which it is desired to secure accurate information. No hint should be given as to answers that would be realized as acceptable, nor should there be any thing that will color the responses in any way. Short, direct, specific questions are preferred. Interest, ease of answering, and willingness to answer are important factors to be considered in constructing the questionnaire and selecting persons to whom it is to be directed. (1:147)

Realizing the factors discussed above, a check list type of questionnaire was prepared. The questions were tested with a few persons in order to check possible confusing points in individual items, and in the general organization. Revisions were made, retests were conducted, and a final draft carefully scrutinized by competent individuals.

Questionnaire items. The questionnaire used, as shown in the Appendix, was designed with the following purposes in mind: (1) to ascertain the availability of audio-visual materials in the general music program of Maryland public junior high schools; (2) to determine the extent to which specific materials are being used, with regards to factors influencing their use or non-use; (3) to learn teachers' attitudes with regard to the values derived from the use of audio-visual materials and techniques as a result of experiences; and (4) to reveal specific audio-visual materials which have been found to be of most value to teachers of the general music classes.

In the process of constructing the questionnaire, information was sought pertaining to audio-visual materials which may be used in music instruction, as recommended by well-known and experienced music educators and authorities in the field of audio-visual instruction. Numerous books, pamphlets, articles, and theses concerning audio-visual materials and techniques were carefully examined. As a result, the lists of audio-visual materials and techniques of questions on the questionnaires were established as being those instructional aids recommended for use in music education by numerous music educators and emphasized by committees of the Music Educators National Conference. From all indications of their functions, it was found that these materials and techniques can be very useful in general music classes, if the teacher properly utilizes them.

Items two and three, which asked the general music teacher if the school's budget permitted the purchasing of films and recordings, and to specify the approximate budget for buying and renting films, and buying recordings, were designed in order to obtain information which would present a picture of the financial resources that sustain the general music education program and assist in meeting its needs in audio-visual materials. Questions four and five of the survey forms were aimed at securing data in order to compare the secured materials with the expenditures for such. The questions were "How many music education

films are owned by your school? Approximately how many are rented each year?" and "Approximately how many recordings are owned by the music department of the school?" These questions were concerned with the extent to which the budget was utilized during the year. This extent was assumed according to the specified amount of materials. If no budget was provided for purchasing or renting materials, the teachers, in all cases, indicated the reasons for this, although this was not specifically asked for on the survey forms.

Statistical Analysis of Data. The questionnaire returns were categorized into four groups, according to the size of the enrollment of each school. Group I consists of schools with a total enrollment up to five hundred pupils; Group II, enrollment of five hundred to one thousand pupils; Group III, enrollment of one thousand pupils to two thousand pupils; and Group IV, enrollment of two-thousand and more pupils. The analysis of the data was based upon these four groups.

The items of the questionnaires were categorized into two groups, namely, (1) those questions which would be analyzed according to the number of schools represented, and (2) those questions which would be analyzed according to the number of individual teachers' responses. The first five items were considered in the former group, the last three in the latter.

The procedure for tabulation of data was influenced by the specific items to be tabulated. The data of some of the items readily availed themselves to be presented in percentage and frequency tables. In one case, concerning the budget for buying recordings, because of the wide deviations between responses concerning this item, a measure of central tendency was shown through a graph.

II. GROUP STUDIED

A directory of the principals and public high schools in Maryland was obtained from the Maryland State Department of Education, upon request. Schools were listed as being junior high, high schools, or senior-junior high schools. Seventy-three junior high schools were listed. Since the study was limited to investigating the use of audio-visual materials in the general music programs of junior high schools' curricula, the seventy-three schools were selected to be the group studied. A list of the schools returning completed questionnaires comprises the last Appendixes of this report.

Schools Included in Survey. Two questionnaires were sent to the principals of each of the seventy-three schools to be distributed to two general music teachers of the school, in cases where there were more than one such teacher employed. This procedure of distributing questionnaires was followed

because of the difficulty and length of time required for (1) obtaining a list of the names of general music teachers in each school, and (2) obtaining the number of general music teachers employed in each school.

About one month after the original mailing of the questionnaires to the seventy-three schools, thirty-one schools had responded, or forty-two per cent. Follow-up letters, with an enclosed questionnaire, were sent to the forty-two schools, of which nine replied, making a total of forty returns, or fifty-five per cent. The detailed distribution of responses is shown in Table I.

TABLE I
DISTRIBUTION OF RETURNS ACCORDING TO
SCHOOLS PARTICIPATING IN SURVEY

Classification of Survey Forms	Schools	
	Number	Per cent
Number of junior high schools	73	100
Total survey forms sent out	146	-
Number of schools represented in the returns	40	55
Schools returning two completed survey forms	11	27.5
Schools returning one completed survey form*	29	72.5
Survey forms analyzed for report	51	-

*Twenty-nine incompleated survey forms were returned as requested, indicating that twenty-nine schools have employed only one general music teacher.

The forty schools were divided into four groups, as explained under statistical analysis. The detailed distribution of the participating schools according to the size of the school enrollment is presented in Table II. The largest group of schools responding came in the five hundred to one thousand enrollment classification.

TABLE II

DISTRIBUTION OF FORTY SCHOOLS INCLUDED IN SURVEY
ACCORDING TO SIZE (ENROLLMENT) OF SCHOOL

Size of School (Enrollment)	Group	Number of schools	Per cent of total responses
0-500	I	9	22.5
500-1000	II	15	37.5
1000-2000	III	8	20
2000-above	IV	8	20

Teachers Included in Survey. Considering the fact that although two or more teachers in one school would more than likely have the same accessibility of materials, the extent to which the materials are used could differ considerably because of the individual differences of the two teachers. In order to get representative data of the ideas of junior high school general music teachers in Maryland, two questionnaires were sent to each school.

Of the forty schools participating in the study, eleven, or twenty-seven per cent of these schools employ more than one general music teacher. Table III presents a detailed distribution of teachers according to the number of schools responding. For example, in Group II, five-hundred to one-thousand pupils, two completed questionnaires were received from three of the fifteen schools, while one completed questionnaire and one incompletd questionnaire were received from twelve schools.

TABLE III
DISTRIBUTION OF TEACHERS ACCORDING TO THE
NUMBER OF SCHOOLS RESPONDING

Size classification	Number of schools responding	Number of schools with more than one teacher	Total responses
Group I (0-500 students)	9	0	9
Group II (500 -1000 students)	15	3	18
Group III (1000-2000 students)	8	2	10
Group IV (2000-above students)	8	6	14
Total	40	11	51

Summary. Questionnaires were sent to seventy-three junior high schools of Maryland. Two questionnaires were sent to the principals of each school, with an accompanying letter asking the principal to distribute the forms to two general music teachers of the school, in cases where more than one such teacher were employed. Forty schools were represented in the survey forms returns. Eleven of the schools indicated more than one general music teacher. Fifty-one survey forms were analyzed for the report. The statistical methods of analyzing the data were dependent upon the items of the survey forms. In presenting the data, percentage and frequency tables are used.

CHAPTER V

THE QUESTIONNAIRE RESULTS

The purpose of this survey report was to present facts about the extent to which specific audio-visual materials are being used in general music classes of selected Maryland junior high schools. The survey forms returned by forty schools participating in this study contain much detailed information which might be used for showing the over-all picture of the prevailing situation relative to the school year, 1956-57.

The study is concerned with four aspects: (1) the availability of audio-visual equipment, films, and recordings, (2) the financial resources for obtaining films and recordings, (3) the actual extent of utilization of specified kinds of audio-visual materials and techniques, and (4) values of audio-visual materials. The following discussion presents the information as reported on the survey forms concerning these four aspects.

I. AVAILABILITY OF AUDIO-VISUAL AIDS

A. AVAILABILITY OF EQUIPMENT

There are many aspects of audio-visual instruction which may be handled by the teacher, using her own resources. In this classification come such audio-visual materials as charts,

posters, flat pictures, and general audio-visual techniques of teaching. There are, however, a number of important aspects of the general music program that require the use of audio-visual equipment, some of which are quite expensive.

Sound motion picture projectors, filmstrip projectors, record players, radios, and musical instruments are some of the equipment recommended by the Music Educators National Conference Committee on Audio-Visual Aids in Music Education. (16:216-235) In addition to these, there are other types of equipment which have significant parts to play in a well organized general music instructional program. Slide projectors, opaque projectors, recorders, and television receivers are among these.

An overall view of the equipment situation in the general music program of forty of Maryland junior high schools is presented in Table IV and Figure 1. One hundred per cent of the forty schools reporting indicated possession of motion picture projectors, record players, recordings, and pianos. More than sixty per cent of the schools have filmstrip projectors, slide projectors, tape recorders, 16 mm films, radio, chalkboard, bulletin board, rhythm instruments, orchestral instruments, and public address system. Only two of the schools have overhead projectors and television receivers.

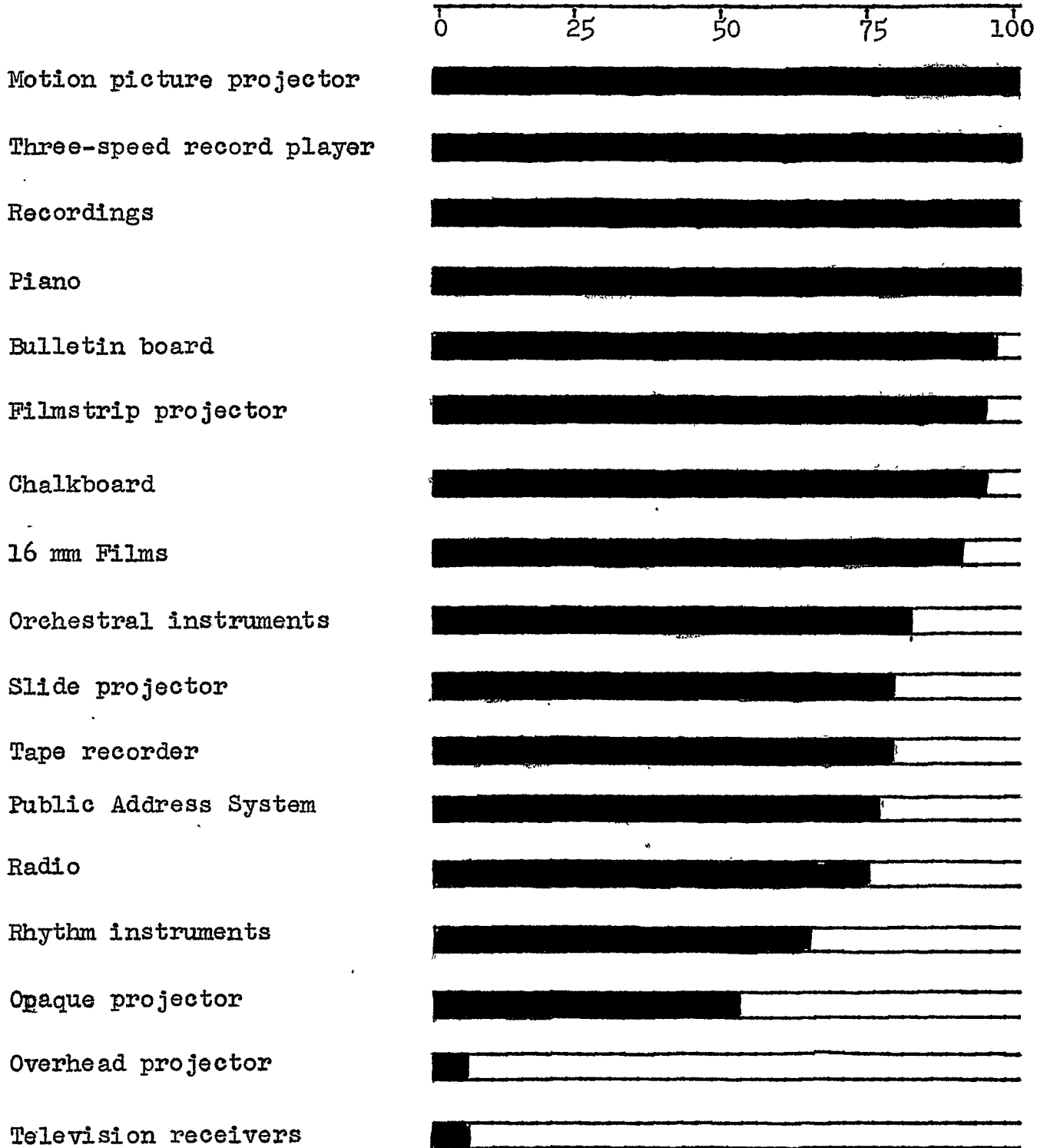
TABLE IV

THE AVAILABILITY OF SPECIFIED KINDS OF EQUIPMENT
IN FORTY MARYLAND PUBLIC JUNIOR HIGH SCHOOLS

Kind of equipment	Schools with specified kind of equipment		Schools without specified kind of equipment	
	Number	Per cent	Number	Per cent
Motion picture projector	40	100	0	0
Filmstrip projector	38	95	2	5
Slide projector	32	80	8	20
Opaque projector	20	50	20	50
Overhead projector	2	5	38	95
Tape recorder	32	80	8	20
Three-speed record player	40	100	0	0
Recordings	40	100	0	0
16 mm films	36	90	4	10
Radio	29	72.5	11	27.5
Chalkboards	38	95	2	5
Bulletin boards	39	97.5	1	2.5
Piano	40	100	0	0
Rhythm instruments	27	67.5	13	32.5
Orchestral instruments	33	82.5	7	17.5
Public Address System	31	77.5	9	22.5
Television*	2	5	38	95

*Although not included on questionnaire, two schools indicated the availability of television receivers by listing it under item seventeen, which asked for other available equipment not listed.

PER CENT OF SCHOOLS HAVING SPECIFIED KINDS OF
AUDIO-VISUAL EQUIPMENT



Teachers were asked to indicate not only specified audio-visual equipment available to them, but also the unavailable equipment which they desired to use and would use if such be available. Of the number of teachers reporting that the slide projector, opaque projector, rhythm instruments, orchestral instruments, and public address system are unavailable in their situations, over fifty per cent of the specific number of teachers in each case indicated that they have no desire to use such equipment. In the case of the tape recorder, nine teachers indicated its being unavailable; all of them expressed a desire to use the recorder. Most of the teachers have no desire to use the overhead projector. Table V presents the distribution of teachers who desire and do not desire unavailable equipment. This report is based on the fifty-one teachers participating in the survey.

TABLE V

TEACHERS DESIRING AND NOT DESIRING
UNAVAILABLE EQUIPMENT

(Based on fifty one teachers reporting)

Kind of equipment	Teachers indicating unavailability of equipment		Teachers desiring unavailable equipment		Teachers not desiring equipment	
	Number	Per cent	Number	Per cent	Number	Per cent
Filmstrip projector	2	4	1	50	1	50
Slide projector	9	18	4	44	5	56
Opaque projector	22	43	2	9	20	91
Overhead projector	47	92	1	2	46	98
Tape recorder	9	18	9	100	0	0
16 mm Films	4	8	2	50	2	50
Radio	14	28	7	50	7	50
Chalkboards	2	4	1	50	1	50
Bulletin board	1	2	0	0	1	100
Rhythm instruments	15	29	4	27	11	73
Orchestral instruments	8	16	3	37	5	62
Public Address System	10	20	3	30	7	70

NOTE: The numbers and per cents in the two columns to the right are based on the number in the column to the left. The numbers in the first column, from the left, are based on fifty-one teachers. For example, two of the fifty one teachers, or four per cent, indicated unavailability of filmstrip projectors; one of the two teachers desire to use the equipment, and one have no desire to use the equipment.

B. AVAILABILITY OF FILMS

There are some very valuable materials in the general music program which must be obtained either by purchase, rental, or local production. Films and recordings are listed in this category.

Teachers were asked to indicate whether or not the schools' budgets permit purchasing of films, to be used for instructional purposes in general music classes. The answers are as shown in the results:

ANSWER	NUMBER OF SCHOOLS	PER CENT
Yes	6	15
No	32	80
No answer	<u>2</u>	<u>5</u>
Total	40	100

The replies show that only six of the forty schools provide a budget for purchasing films. The majority of the schools obtain films through local sources, such as the audio-visual libraries of departments of education.

The replies to the question concerning the available budgets for buying and renting films are divided into four categories: (1) schools with a budget for buying films; (2) schools with a budget for renting films; (3) schools with budgets for buying and renting films; and (4) schools who obtain

films free from local sources, and therefore establish no set budget.

The small number of schools providing budgets for buying and/or renting films accounts for the limited number of responses to the question concerning the number of music education films owned by each school. Four schools reported the actual number of films owned by the school, ranging from two films to fifty films. Nine schools indicated the approximate number of films rented per year, which averaged about four films per school.

G. AVAILABILITY OF RECORDINGS

Teachers were asked to indicate if the schools' budget permitted the purchasing of recordings to be used for instructional purposes in general music classes. The responses were as follows:

ANSWER	NUMBER OF SCHOOLS	PER CENT
Yes	34	85
No	4	10
No answer	<u>2</u>	<u>5</u>
Total	40	100

Thirty four of the forty schools provide a budget for purchasing recordings, as shown above. The teachers of the four schools which indicated no budget replied that they have access

to recordings through a central library established by the Board of Education.

In order to obtain information concerning the immediate accessibility of recordings for the music program within the schools, teachers were asked to indicate the approximate number of recordings owned by the school in conjunction with the music education program. Figure 2, on page fifty-eight, describes the distribution of the number of recordings owned by schools reporting according to the size of the enrollment of the schools.

The survey shows that, on the basis of the number of schools reporting in each size classification, schools of Group I, enrollment up to five hundred students, own the smallest number of recordings. This information is not intended to lead one to believe that the tendency in Maryland is for smaller populated junior high schools to own fewer recordings. Although this may be true, because of the limited percentage of schools participating in this survey, it would be invalid to conclude this as a fact. It is, however, interesting to note that according to Figure 2, the percentage of schools in Group IV, enrollment of two thousand and more students, owning more than one hundred recordings is about the same proportion as the percentage of schools in Group I owning less than one hundred recordings. That is, six out of the seven schools reporting in Group I own less than one hundred

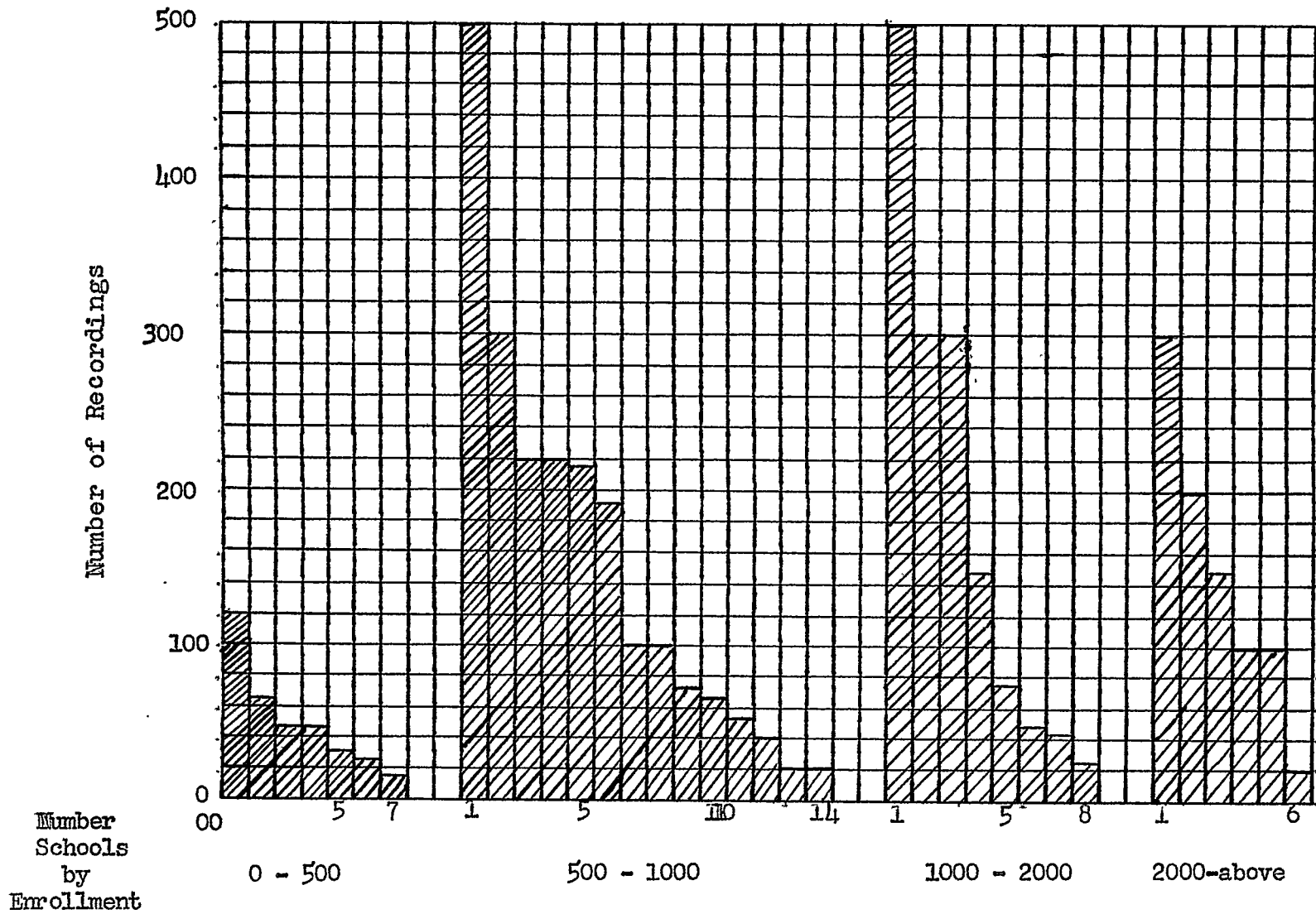


FIGURE 2

DISTRIBUTION OF RECORDINGS OWNED BY
 JUNIOR HIGH SCHOOLS ACCORDING TO
 SIZE OF SCHOOLS

recordings, and five out of six schools reporting in Group IV own one hundred and more recordings.

Schools listed in Group II, enrollment of five hundred to one thousand students, and Group III, enrollment of one thousand to two thousand students, have a relative distribution of the number of available recordings. Group II shows that fifty-seven per cent of the schools own more than seventy-five recordings, while Group III indicates that fifty per cent of the schools reporting own more than seventy-five recordings. The number of seventy-five recordings was used to show the relative distribution of the number of recordings owned by schools because seventy-five recordings owned by one school is common to both groups.

II. FINANCIAL RESOURCES

Teachers were asked the approximate budgets for buying and renting films, and for buying recordings. In the report of the availability of films and recordings, it was pointed out that a small percentage of schools reporting provided a budget for buying or renting films. This is due to the fact that local sources provide these materials free of charge. This section of the report deals exclusively with the financial resources for obtaining recordings. The information secured, which describes the approximate budget established in the

schools for obtaining recordings, will be treated as current expense, although allocations for purchasing of recordings might well be regarded as capitol investment which has been amortized over a period of years.

Thirty-four schools reported that a budget was provided for purchasing recordings. Eight schools replied that there was no set amount, while twenty-six schools reported the approximate amount of the budget. Table VI shows the average amount of money allocated per school reporting, according to the size of enrollment of the schools. The "average amount of budget per school" increases as the size of the schools increase. The average budgets per school, concerned mainly according to groups, are distributed thusly: \$36.43 for schools with less than five hundred pupils; \$52.78 for schools with five hundred to one thousand pupils; \$62.50 for schools with one to two thousand pupils; and \$91.67 for schools with two thousand and more pupils. These amounts are not typical for the group as a whole, but only for those schools within the group which reported on the item in question.

TABLE VI

APPROXIMATE BUDGETS FOR BUYING RECORDINGS IN
MARYLAND PUBLIC JUNIOR HIGH SCHOOLS
AS OF THE SCHOOL YEAR 1956-57

	All Schools	Schools distributed according to size			
		Group I	Group II	Group III	Group IV
		Number of schools	40	9	15
Number reporting	26	7	9	4	6
Per cent reporting	65	78	60	50	75
Total amount	\$1570.	\$255.	\$515.	\$250.	\$550.
Average per school reporting	\$60.38	\$36.43	\$52.78	\$62.50	\$91.67

NOTE: The total of the amounts reported has been divided by the number of schools reporting such figures in each size classification to give an average amount per school reporting. This average should be read in conjunction with the "per cent reporting" figure, because it is not typical for the group as a whole, but only for those schools within the group which reported on the item in question.

III. UTILIZATION OF AUDIO-VISUAL MATERIALS

The values of audio-visual materials are dependent upon the skill with which teachers utilize them to achieve learning. To make an accurate study of the utilization of materials requires careful observation of classroom practices, impossible in a general questionnaire survey of this type. Because of the limitations imposed by the survey method, the utilization question concerned points on which the general music teacher could supply objective information.

Teachers were asked to indicate the extent to which they use specified audio-visual materials and techniques; i.e., whether they use the specified materials and techniques "extensively," "often," "occasionally," "rarely," or "never."

The interpretation of the words denoting different extents of use, which are listed on the survey forms, may differ among the teachers answering these forms. In this report, these degrees are interpreted in the following manners.

"Extensively" denotes that specified materials and techniques are used by teachers as a regular teaching procedure in general music classes. "Often" implies occasional deviations from regularity. That is to say, materials may be used frequently and irregularly. "Occasionally" indicates that materials are used infrequently with deviations on one side

towards often, and on the other side towards rarely. "Rarely" signifies that materials are used even less infrequently than "occasionally" implies. "Never" shows that specified materials and techniques are not used in any degree, way, or condition.

Table VII, which is presented on the following three pages, shows a detailed classification of responses of fifty general music teachers of Maryland Public Junior High Schools. The survey shows that, of the kinds of materials and techniques listed, song books are used more extensively than any other materials. Eighty-six per cent of the teachers replied that they use song books "extensively," and twelve per cent added that they use song books "often." This means that the majority of the fifty teachers provide singing activities from song books as a regular procedure in providing musical experiences through general music classes.

Of the visual aids listed, the bulletin board and chalkboard are used most extensively. Other visual materials used "extensively" and "often" by over fifty per cent of the teachers are professional made charts of diagrams and drawings of instruments, teacher made charts illustrating rhythmic patterns, flat pictures cut from magazines and newspapers, and pictures of musicians and of instruments. The opaque projector, flannel or felt board, and three dimensional materials, i.e., models, mock-ups, and dioramas, are indicated as never being used by a great majority of the teachers.

TABLE VII

DISTRIBUTION OF THE EXTENTS TO WHICH SPECIFIED AUDIO-VISUAL
MATERIALS AND TECHNIQUES ARE UTILIZED ACCORDING TO THE
RESPONSES OF FIFTY GENERAL MUSIC TEACHERS OF
MARYLAND PUBLIC JUNIOR HIGH SCHOOLS

Kind of audio- visual materials and techniques	Extent of utilization									
	Extensively		Often		Occasionally		Rarely		Never	
	No.	%	No.	%	No.	%	No.	%	No.	%
16 mm films	-	-	11	22	26	52	7	14	6	12
Filmstrips	-	-	8	16	14	28	10	20	18	36
Slides	-	-	2	4	11	22	12	24	25	50
Tape recorder	2	4	12	24	19	38	6	12	11	22
Recordings	29	58	19	38	1	2	-	-	1	2
Transcriptions	-	-	2	4	7	14	7	14	34	68
Radio	1	2	3	6	13	26	10	20	23	46
Public Address System	2	4	7	14	10	20	5	10	26	52
Chalkboard	32	64	16	32	1	2	-	-	1	2
Bulletin Board	34	68	10	20	4	8	-	-	2	4
Flannel (Felt) Board	1	2	5	10	7	14	6	12	31	62
Flash Cards	4	8	3	6	15	30	9	18	19	38
Professional made charts of diagrams and drawings of										
a. instruments	12	24	24	48	10	20	-	-	4	8
b. voice	3	6	11	22	12	24	4	8	20	40
c. music notation	7	14	15	30	14	28	1	2	13	26
d. music history	4	8	14	28	20	40	2	4	10	20
Teacher-made charts of										
a. musical themes	7	14	18	36	15	30	1	2	9	18
b. rhythmic patterns	10	20	16	32	17	34	1	2	6	12
c. music reading exercises	5	10	16	32	22	44	1	2	6	12

TABLE VII (continued)

Kind of audio-visual materials and techniques	Extent of utilization									
	Extensively		Often		Occasionally		Rarely		Never	
	No.	%	No.	%	No.	%	No.	%	No.	%
Teacher-pupil made charts	5	10	8	16	23	46	4	8	10	20
Purchased flat pictures	7	14	17	34	14	28	8	16	4	8
Pictures from magazines and papers	13	26	22	44	13	26	1	2	1	2
Pictures of musicians	9	18	24	48	16	32	1	2	-	-
Pictures of instruments	20	40	24	48	5	10	-	-	1	2
Song books	43	86	6	12	1	2	-	-	-	-
Opaque projector	-	-	1	2	5	10	8	16	36	72
Models	1	2	3	6	9	18	10	20	27	54
Mock-ups	-	-	-	-	3	6	9	18	38	76
Dioramas	-	-	2	10	5	10	9	18	34	68
Dramatizations	2	5	5	10	20	40	15	30	8	16
Teacher demonstrations	12	24	20	40	13	26	2	4	3	6
Demonstrations by a. students of the class	5	10	21	42	21	42	1	4	2	4
b. students not of the class	1	2	6	12	16	32	17	34	10	20
Demonstrations by other musicians	1	2	2	4	18	36	17	34	12	24
Demonstrations by professional groups	1	2	2	4	21	42	16	32	10	20

TABLE VII (continued)

Kind of audio-visual materials and techniques	Extent of utilization									
	Extensively		Often		Occasionally		Rarely		Never	
	No.	%	No.	%	No.	%	No.	%	No.	%
Piano	40	80	10	20	-	-	-	-	-	-
Pitch pipe	3	6	6	12	11	22	11	22	19	38
Autoharp	4	8	5	10	28	56	4	8	9	18
Rhythm instruments	7	14	10	20	17	34	10	20	8	16
Orchestral instruments	6	12	5	10	31	62	5	10	3	6

NOTE: Columns headed "No." denote the number of teachers; columns headed "%" denote the per cent of fifty teachers who checked the specified extent of utilization opposite the specified kind of audio-visual materials and techniques. This table should be read as follows: Forty teachers, or eighty per cent of fifty teachers, use the piano "extensively;" ten teachers, or twenty per cent of the fifty teachers, use the piano "often." This means that fifty teachers use the piano "extensively," and "often," or one hundred per cent of the teachers reporting.

Fifty per cent of the teachers indicated that they never use slides in their teaching of general music classes.

The survey reveals that recordings are the most widely used audio aids, for ninety-six per cent of the teachers use recordings "extensively" and "often." Transcriptions and radios are least used by teachers.

Motion picture films indicate a wide variety of the extent to which they are used. Fifty-two per cent of the teachers use films "occasionally;" twenty-two per cent use films "often" and fourteen per cent "rarely" use them, while the remaining twelve per cent "never" use films.

The audio-visual method of instruction, or technique, used "extensively" and "often" by the majority of the teachers is that of teacher demonstrations. Demonstrations by students of the class are "often" used by forty-two per cent, and "occasionally" used by forty-two per cent of the teachers.

Fifty-eight per cent of the teachers "rarely" or "never" have other music educators to come into their classes to speak and perform demonstrations for the students. Fifty-two per cent of the teachers "rarely" and "never" provide their classes with experiences of observing demonstrations and performances by professional groups. Such factors as locality and unavailability of financial resources may have tremendous influence on this noted situation.

All of the fifty teachers indicated that they use the piano "extensively" and "often." The majority of the teachers use the autoharp, rhythm instruments, and orchestral instruments "occasionally."

Although the television was not listed on the questionnaire, two teachers indicated the use of television receivers, one using it "often" and the other using it "occasionally." Since a space was left for teachers to indicate on the survey forms other materials used which were not listed, and only two teachers of the fifty teachers reporting use televisions, or replied that they used television receivers, it appears that only two of the fifty teachers use televisions, and perhaps are the only two provided with television receivers in their classrooms, or surrounding available areas.

IV. VALUES OF AUDIO-VISUAL MATERIALS

This survey was further pursued with the purpose of obtaining an acknowledged idea of the attitudes of general music teachers, with regard to values derived from the use of audio-visual materials and techniques as a result of their experiences. Because of the limitations imposed by a general questionnaire survey of this kind, only opinions of the values of audio-visual instructional aids in general could be obtained, rather than values of specific materials.

Teachers were asked to indicate, by checking on the line opposite one of the value descriptive phrases, their general opinion of those audio-visual materials which they use, or have used in their teaching experiences. The data, with regard to the opinions of fifty general music teachers, are presented in Table VIII.

TABLE VIII
FIFTY TEACHERS' OPINIONS OF THE VALUES
OF AUDIO-VISUAL MATERIALS

Values	Number of teachers answering	Per cent of teachers answering
outstandingly valuable	13	26
considerably valuable	31	62
fairly valuable	5	10
of little value	1	2
of no value	-	-
Total	<u>50</u>	<u>100</u>

Most of the teachers feel that their over-all experiences with using audio-visual materials as instructional aids prove to be of considerable usefulness in helping them to establish desirable learning situations for the pupils involved. Twenty-six per cent of the teachers feel that their use of audio-visual

materials have been "outstandingly" valuable in establishing desirable learning situations. Five per cent of the teachers feel that audio-visual materials are "fairly" valuable, and one teacher feels that the materials are of little value.

The last request for information on the survey forms was concerned with finding out some specific audio-visual materials found to be of most value to each of the teachers completing these forms. Only nineteen teachers replied to this request.

Table IX shows the distribution of answers according to the responses of nineteen teachers. Of the thirteen materials denoted as being most valuable to individual teachers, films and recordings are referred to the most number of times. Other materials included in this section are chalkboards, pictures, teacher-made charts, flash cards, tape recorders, rhythm instruments, filmstrips, slides, bulletin board, piano, and television programs.

TABLE IX

DISTRIBUTION OF THE THIRTEEN AUDIO-VISUAL MATERIALS
FOUND TO BE MOST VALUABLE TO NINETEEN
GENERAL MUSIC TEACHERS

Kind of materials	Number of Teachers	Per cent of Teachers
Films	9	47
Recordings	9	47
Chalkboards	5	26
Pictures, flat	5	26
Tape recorder	3	16
Rhythm instruments	3	16
Teacher made charts	2	11
Flash Cards	2	11
Television programs	2	11
Filmstrips	1	5
Slides	1	5
Bulletin board	1	5
Piano	1	5

NOTE: This table is to be read in terms of the number of teachers indicating the materials listed as being aids found to be of most value to them in their teaching experiences. For example, nine teachers refer to films as being one of the most valuable aids in their teaching situations.

The following are some of the comments made by teachers:

"Flash cards help the students to better visualize musical notation and signs and symbols."

"The 16mm films and recordings which are made available to us through the Department of Education are of great value to me in my general music teaching."

"Good films seem to hold interest and drive home the point in the best manner. Pictures related to 'subject for the day' are always effective."

I find charts very valuable. I make them myself and post them on walls where they can be seen. At present I have charts of voice ranges, seating place of an orchestra, note values, bass clef, and marks of expression around the room. Flash cards are excellent for learning notes.

I find that a classroom, chalkboards, good piano, a set of good junior high music books, a good record player, and record library are necessary for a good music teaching program. Rhythm instruments, pictures, charts, and band instruments are helpful. Other materials are helpful, but I question if the additional work and cost can justify what is gained by the students.

The bulletin board is used with each unit, to correlate the music history with the unit being studied in core-classes. The chalkboard is used constantly so that the music being heard is identified. I use the board also for outlines to be copied into notebooks--since we have no text-books; and, with the staff-liner for rhythmic patterns, key signatures, melodic patterns, etc.

This teacher also referred to a set of glass slides, $3\frac{1}{4}$ " x 4", which she made, while at the University of Maryland in an extension course of audio-visual aids, to show reeds and mouthpieces of the woodwind instruments when teaching about the instruments of the orchestra.

One comment made by a teacher expressed points which are emphasized in Chapter Three of this report, Basic Principles of Using Audio-Visual Materials. She expresses the idea that "no visual aid is an aid merely by being visible. It's value depends upon the manner in which it is used."

Summary. This chapter presented the data as obtained from the fifty-one questionnaire returns, representing forty Maryland public junior high schools. The findings were divided into four aspects: (1) the availability of materials, (2) financial resources, (3) extent of utilization of audio-visual materials and techniques, and (4) teachers' attitudes with regard to the values derived from the use of audio-visual materials and techniques as a result of experiences.

The over-all view of the availability situation may be summarized as follows:

All of the schools participating in the survey indicated that motion picture projectors, record players, recordings, and pianos were available for use in the general music program. More than ninety per cent of the schools provide filmstrip projectors, chalkboards, and bulletin boards for general music classes. The least provided equipment is the over-head transparency projector and television receivers. Of the number of unavailable equipment in different schools, all teachers who indicated the unavailability of the tape recorder desire to

use the same. A very small number of schools had available budgets for purchasing films. The majority of schools obtain films directly from local resources, such as the Department of Education libraries. Most schools provide budgets for buying recordings.

The second aspect of the questionnaire data was concerned with the financial assistance for obtaining recordings. This was presented with regards to the size of the schools' enrollment. The per cent of schools reporting in each group shows that the "average amount per school" increases as the size of the enrollment of the schools increases.

The third aspect of the study dealt with the extent of utilization of materials. Of the visual aids, the bulletin board and chalkboard are used more extensively than any other materials. Of the audio aids, recordings are the most extensively used materials. Motion picture films (16 mm) are used occasionally by the majority of the teachers reporting. Teachers' demonstrations are the only audio-visual methods of instruction, or techniques, used more than occasionally by the majority of the teachers.

The final aspect of the data concerning values of audio-visual materials shows that eighty-eight per cent of the fifty teachers participating in this survey feel that audio-visual materials are of "considerable" and "outstanding" values as aids in their teaching situations. Comments about specific values of specified materials concluded the survey data.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The contents of this chapter is concerned with (1) presenting a condensed restatement of the developments of the previous chapters, (2) comparing the current practices concerning availability and utilization of materials with recommended practices and establishing conclusions based on supporting evidences of the questionnaire findings, and (3) presenting recommendations for additional research studies.

I. SUMMARY

Statement of the problem. It was the purpose of this study (1) to ascertain the availability of audio-visual materials to general music programs of selected Maryland Public Junior High Schools; (2) to present indications of the extent to which specified materials are used; (3) to present teachers' attitudes with regard to the values derived from the use of audio-visual materials and techniques as a result of experiences; (4) to investigate audio-visual materials which are recommended for use in junior high schools; and (5) to compare materials which the survey shows are currently being utilized with those recommended and available for use.

Within the past thirty or forty years, educators have been carefully scrutinizing all aspects of effective teaching with audio-visual materials. Within a lesser period of time, music educators have begun to realize the effectiveness that audio-visual materials have upon teaching-learning situations established in music classes. Chapter two discussed the development and growth of the educational concept of using audio-visual materials as instructional aids within classrooms. Forms of this concept were traced through the history of mankind.

As a result of the increasing interest in audio-visual materials as instructional aids, research into values and utilization of materials in education is steadily growing. The second portion of chapter two presented reviews of a limited number of studies related to the one at hand.

Chapter three added additional information to this study-concerning basic principles of using audio-visual materials which may be relevant to educational concepts of all areas of study. These basic principles were discussed under four headings: (1) identifying objectives, (2) selecting materials, (3) utilizing materials, and (4) evaluating materials.

Chapter four reported the methods of procedure and group studied. The questionnaire method was used in an effort to secure data concerning (1) the availability of audio-visual

materials for use in general music classes of selected Maryland public junior high schools, (2) the extent to which specified materials are used, and (3) teachers' attitudes with regard to the values derived from the use of audio-visual materials and techniques as a result of experiences.

The audio-visual materials listed on the questionnaires are those materials which the Music Educators National Conference Committees on Audio-Visual Aids, of past and present years, have recommended as a result of careful study on the parts of individual music educators. After meticulous exploration of numerous reports, articles, and books, which are listed in the bibliography of the report, these items were listed on the final draft of the survey forms.

Chapter five related data of the questionnaire returns. Questionnaires were sent to general music teachers of seventy-three junior high schools via of the principals. The following discussion will give specific conclusions based upon the survey findings.

II. CONCLUSIONS

Because of the differences of individuals, interests, and abilities among junior high school students, a variety of activities are included in a good general music class. Many of these activities are dependent upon the type and availability of audio-visual materials and equipment along with a knowledge

of teaching and techniques. The use of these materials are further dependent upon the accessibility of the materials as well as upon the teachers ability to utilize them.

The Music Educators National Conference advocated that, in order to have an effective junior high music program, well trained music teachers and materials with which to work must be provided. (16:108) These tools include audio-visual materials which have been listed on the questionnaires sent to general music teachers of Maryland public junior high schools.

In light of the survey findings, the established conclusions are as follows:

1. Motion picture projectors, three-speed record players, recordings, and the piano were found to be accessible to general music instruction in all of the forty Maryland junior high schools participating in the survey. Most of the schools have filmstrip projectors, 16 mm films, chalkboards, bulletin boards, slide projectors, opaque projectors, tape recorders, radios, rhythm instruments, orchestral instruments, and public address systems, all of which are available for use in general music classes.

2. In the majority of Maryland public junior high schools participating in the survey, motion picture films, 16 mm, are provided for teachers through local sources. These local sources include libraries of audio-visual aids of the

Department of Education, and county audio-visual aids departments. Approximately fifteen per cent of the schools indicated an audio-visual department within the school, through which music education films are secured. In these cases, there is a general budget for the audio-visual aids department, and films are obtained upon teachers' request. Films obtained from local sources are usually provided for the schools free of charge. Only a very small percentage of the schools reporting provide a budget within the music department for renting music education films, and an even smaller number has a budget for buying films.

3. Approximately eighty-five per cent of the schools provide budgets for the music department to buy recordings. The other schools obtain recordings through a Central Library of the Board of Education, which contains recordings and other instructional materials.

The number of recordings owned by schools, with enrollments ranging from eighty pupils to more than two thousand, range from fifteen albums to five hundred recordings. The size of the enrollment of the school does not appear to be an influential factor in the number of recordings owned by different schools. The decisive factor is perhaps concerned with the budget and the attitudes of teachers and administrators. The budget amounts in different schools range from fifteen dollars to \$125. These allocations for purchasing recordings may be regarded as capitol investment which has been amortized

over a period of years, depending upon the individual school.

It has been stated above that the size of the enrollment of the school did not appear to be an influential factor in the number of recordings owned by different schools, rather the budget and teachers' attitudes were the decisive factors. It is, however, noticeable that the larger the schools, according to the four groups established in this report, the larger the budgets. That is, the average amount allocated to schools with enrollments of two thousand and above, Group IV, is larger than the allocated amounts of the schools within Group III, schools with enrollments of one thousand to two thousand. The budgets for schools in Group II, enrollment of five hundred to one thousand, are larger than the budgets of schools in Group I, enrollment of less than five hundred, and smaller than schools in Group III.

4. All thirty-four of the audio-visual materials and techniques listed on the survey forms are used by some teachers to varying extents. Of the visual aids listed, the bulletin board, chalkboard, charts, both professional and teacher made, and mounted and unmounted flat pictures are used "extensively" and "often" by over fifty per cent of the teachers. The majority of the teachers "never" use the opaque projector, flannel, or felt, board, and three dimensional materials, i.e., models, mock-ups, and dioramas.

Fifty per cent of the teachers indicated that they "never" use slides for teaching aids, which shows that thirty-nine per cent of the teachers who have access to a slide projector have, as of yet, found no need, or no desire, for using this projector.

Of the audio-aids listed, recordings are the most extensively used. About twenty-five per cent of the teachers who have access to radios never use them in their teaching experiences.

Only two teachers who have access to motion picture projectors and films indicated that they never use them as a part of their teaching. Most of the teachers use films only "occasionally."

The piano is used "extensively" and "often" by general music teachers. Most of the teachers occasionally use the autoharp, rhythm instruments, and orchestral instruments. Only two teachers indicated the availability and utilization of television receivers.

5. As a result of using audio-visual materials in teaching situations, eighty-eight per cent of the teachers reporting believe that audio-visual materials are very valuable in establishing desirable learning situations. This research shows conclusively that values of audio-visual materials are worthy of teachers' considerations.

6. Materials recommended as being most valuable in music teaching situations by music teachers are films,

recordings, chalkboards, flat pictures, tape recorders, rhythm instruments, teacher-made charts, flash cards, television programs, filmstrips, slides, bulletin boards, and the piano.

This study shows that the available materials are utilized greatly by general music teachers of Maryland public junior high schools. Because this survey was conducted by questionnaire, it was only possible to make a rough quantitative check of the utilization of audio-visual materials, namely, to what extent teachers used specified kinds of materials. This study verifies that music teachers and administrators of Maryland junior high schools are aware, and are using, these audio-visual materials recommended by organizations concerned with studying values of audio-visual materials as media of communication.

III. RECOMMENDATIONS

1. The best way to investigate the utilization of audio-visual materials is to analyze the learning experiences within the classrooms. It is recommended that junior high general music teachers be concerned with analyzing the learning experiences within their classes and relate these findings to means of effective utilization of materials, and better production of materials, and contribute these ideas to the improvement of music instruction.

2. It is also recommended that more minute study of specific audio-visual materials, such as 16 mm music education films, filmstrips, and slides, be undertaken with regard to specific contributions of these materials to various activities of the general music class: singing, listening, rhythmic experiences, instrumental experiences, creative activities, and general discussions.

3. It is further recommended that students of music education in colleges become familiar with as many audio-visual materials and as much equipment as possible so that they may be prepared to utilize available materials adequately and wisely.

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A P P E N D I X E S

- A. TRANSMITTAL LETTER
- B. QUESTIONNAIRE
- C. FOLLOW-UP LETTER
- D. TABLE OF FORTY MARYLAND
JUNIOR HIGH SCHOOLS

A. TRANSMITTAL LETTER

APRIL 13, 1957

TO THE JUNIOR HIGH SCHOOL PRINCIPAL:

Dear Sir:

In order to fulfill partial requirements for the Master of Music degree at the School of Fine and Applied Arts of Boston University, I am conducting an investigation on the use of audio-visual materials in general music classes of Maryland Public Junior High Schools. The purpose of this study is to determine the extent to which specific instructional materials are being employed in general music classes.

It is very difficult to obtain a list of general music teachers in Public Junior High Schools of Maryland, as well as to obtain the number of general music teachers employed in each school. Therefore, it is necessary that I solicit your help in distributing questionnaires to general music teachers.

I am enclosing two questionnaires. Will you please distribute these to two general music teachers to be filled out and returned in the self-addressed, stamped envelopes which I have enclosed. If there is only one general music teacher, I would appreciate your returning the extra questionnaire.

Your immediate consideration of this matter will be greatly appreciated.

Sincerely yours,

Yevola R. Smith
Yevola R. Smith

B. QUESTIONNAIRE

A study conducted by

Yevola R. Smith
 School of Fine and Applied Arts
 Boston University

TO GENERAL MUSIC TEACHERS:

This questionnaire is concerned with an investigation of the use of audio-visual materials in general music classes of Maryland Public Junior High Schools. It is the purpose of this study to determine the extent to which specific instructional materials are being employed by general music teachers.

I would appreciate your completing this questionnaire at your earliest convenience and returning it to me in the envelope provided.

The identity of any institution will not be revealed; all information will be used only in group data.

TEACHER'S NAME _____
 NAME OF SCHOOL _____
 SCHOOL'S ADDRESS _____
 TOTAL ENROLLMENT OF PUPILS _____

1. Please indicate by a check () (1) the availability of the following equipment for use in General Music Classes of your school, and (2) your desire to use equipment which is not available.

	AVAILABLE	UNAVAILABLE	
		Desire to use	No desire to use
1. Motion Picture Projector			
2. Filmstrip Projector			
3. Slide Projector			
4. Opaque Projector			
5. Overhead Projector			
6. Tape Recorder			
7. Three Speed Record Player			
8. Recordings			
9. 16 mm Films			
10. Radio			
11. Chalkboards			
12. Bulletin Boards			
13. Piano			
14. Rhythm Instruments			
15. Orchestral Instruments			
16. Public Address System			
17. List other available equipment:			

2. Does the school's budget permit the purchasing of the following materials to be used for instructional purposes in General Music Classes?

Films? Yes _____ No _____
 Recordings? Yes _____ No _____

3. What is the approximate budget for buying films? \$ _____; renting films? \$ _____; buying recordings? \$ _____

4. How many music education films are owned by your school? _____
 Approximately how many are rented each year? _____

5. Approximately how many recordings are owned by the music department of the school? _____

6. Please indicate, by checking one of the following phrases, your opinion of those audio-visual materials which you use in your teaching experiences to help you establish desirable learning situations for your pupils.

outstandingly valuable _____ considerably valuable _____ fairly valuable _____ of little value _____ of no value _____.

7. Please indicate the extent to which you use the following materials and techniques in General Music Classes by placing a check mark () under one of the headings opposite each item.

T	Extensively	Often	Occasionally	Rarely	Never
1. 16 mm Films					
2. Filmstrips					
3. Slides					
4. Tape Recorder					
5. Recordings					
6. Transcriptions					
7. Radio					
8. Public Address System					
9. Chalkboard					
10. Bulletin Board					
11. Flannel or Felt Board					
12. Flash Cards					
13. Professional made charts of diagrams and drawings of a. Instruments					
b. Voice					
c. Music Notation					
d. Music History					
14. Teacher-made charts of a. Illustrations of musical themes					
b. Illustrations of rhythmic patterns					
c. Music reading exercises					
15. Teacher-Pupil Made Charts					

(continued)

C. FOLLOW-UP LETTER

11 E. Newton Street
Boston 18, Massachusetts
May 23, 1957

Office of the Principal

Dear Sir:

About a month ago I sent you a letter asking you to please distribute the two questionnaires, which were enclosed, to two general music teachers. You will please find enclosed one of the same such questionnaire.

Since I have not yet received a reply, this letter is being sent as a reminder. I realize that this time of year brings about a busy situation for you and your staff. It is very necessary that I receive the completed questionnaires in order to complete my study.

Please ask the general music teacher, to whom you gave the questionnaire, to complete the same and return to me at his earliest convenience. Your cooperation in this matter will be greatly appreciated.

Yours truly,

Yevola R. Smith
Yevola R. Smith

TABLE X

FORTY MARYLAND PUBLIC JUNIOR HIGH SCHOOLS
PARTICIPATING IN SURVEY

Name of School	Address	Enrollment	Number of returns
Glasva Jr. High	Faulkner, Md.	80	1
Beach Jr. High-	Chesapeake Beach, Md.	82	1
Calvert Jr. High	Rising Sun, Md.	90	1
Malcolm Jr. High	Malcolm, Md.	156	1
Liberty Jr. High	Libertytown, Md.	160	1
Carroll Manor Jr. High	Baldwin, Md.	210	1
Cresaptown Jr. High	Cresaptown, Md.	230	1
Kitzmilller Jr. High	Kitzmilller, Md.	268	1
Saratoga Jr. High	Saratoga Street and Carrollton Avenue Baltimore 17, Md.	290	1
South Potomac Jr. High	Hagerstown, Md.	500 7	1
Towson Jr. High	Towson 4, Md.	510 7	2
General Henry Lee Jr. High, #72	Hanover & Lee Sts. Baltimore, Md.	600	1
Woodland Way Jr. High	Hagerstown, Md.	610	1
Rockville Jr. High	Park Street Rockville, Md.	660	1
#49 and 49 A	1205 Cathedral St. Baltimore 1, Md.	740	1
Maryland Park Jr. High	Maryland Park 27, Maryland	740	2
Dumbarton Jr. High	Dumbarton Road Baltimore 12, Md.	750	1

TABLE X (continued)

Name of School	Address	Enrollment	Number of returns
North Bethesda Jr. High	Johnson Ave. & Ewing Drive Bethesda, Md.	750	1
Carver Jr. High	Cumberland, Md.	---	1
Mt. Rainier Jr. High	30th & Queens Rd. Mt. Rainier, Md.	800	1
Greenbelt Jr. High	Greenbelt, Md.	860	1
Harvey Johnson Jr. High	Hill St., near Sharp Baltimore 30, Md.	---	1
Kensington Jr. High	Kensington, Md.	950	2
Leland Jr. High	Chevy Chase, Md.	980	1
Sudbrook Jr. High	Pikesville 8, Md.	1100	2
George Fox Jr. High	Pasadena, Green Haven, Md.	1200	1
Wisomico Jr. High	Salisbury, Maryland	1300	1
Glen Burnie Jr. High	Glen Burnie, Md.	1400	1
Annapolis Jr. High	Chase & Smith Aves. Annapolis, Md.	1600	1
Hampstead Hill Jr. High	Eastern & Linwood Aves. Baltimore 21, Md.	1675	1
Golden Ring Jr. High	Raspeburg 6, Md.	1700	2
Woodbourne Jr. High	Baltimore 12, Md.	1900	1
Garrison Jr. High	Garrison Blvd. Baltimore 7, Md.	2000 ⁴	2
Hamilton Jr. High	Bayonne & Sefton Aves. Baltimore 11, Md.	2000	2

TABLE X (continued)

Name of School	Address	Enrollment	Number of returns
Clifton Park Jr. High	Harford Road Baltimore 18, Md.	2300	2
Catonsville Jr.High	Catonsville 28,Md.	2400	2
Stemmers RunJr.High	Baltimore 21,Md.	2400	1
North Point Jr.High	Wise and Merritt Baltimore 22, Md.	2500	2
Gwynns Fall Park	Hilton & Morley Sts. Baltimore 29, Md.	2500	1
Booker T. Washington #130	Lafayette Ave. & McCulloh Street Baltimore 17, Md.	2800	2