A SURVEY OF RADIO IN THE PUBLIC SCHOOLS OF MICHIGAN

Thesis for the Degree of M. A.
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Ruth Dillingham Nadal

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This is to certify that the

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A SURVEY OF RADIO IN THE PUBLIC SCHOOLS OF MICHIGAN

by

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A THESIS

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CHAPTER I

INTRODUCTION

The earliest record of broadcasting to the classroom was in 1923 when experimental broadcasts were conducted in Haaren High School in New York City.[1] Shortly after this, broadcasts were prepared by the New York City Board of Education and broadcast over Station WJZ, but these were soon discontinued. The first national impetus given to school use of radio came in 1928 with the inauguration of music appreciation lessons conducted by Walter Damrosch. In 1930, the American School of the Air[2] began regular school broadcasts over a national hookup. Local school systems had experimented with radio as an educational tool, but the public did not become conscious of radio's classroom possibilities until school programs were broadcast on national networks. Thus, it was the networks which gave the real impetus to the use of radio in the classroom.

About twenty-five years ago, when radio was "born", a few educators saw in it educational possibilities. Many colleges applied for and received licenses to broadcast, some of which were soon revoked or allowed to expire because the colleges did not make full use of their licenses. Some

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1. Atkinson, Carroll, Public School Broadcasting to the Classroom. Boston: Meador Publishing Company, 1942, p. 11

2. A Columbia Broadcasting System production which is still broadcast five times weekly.

of these licenses were used only for experimental purposes. Realizing the potential educational possibilities of radio, many schools purchased radio equipment long before the superintendents and teachers knew how to use this new medium. Because of this a great many teachers misused radio. They did not know how to adapt it to the school situation. It has been only within recent years that teachers have learned how to fit radio in with the over-all objectives in education.

The fear has often been expressed by teachers and school officials that radio might displace the teacher. Experience has shown that radio does not offer competition to the teaching profession. Instead, it is a supplement to teaching and used by the teacher in the same manner as movies, maps, books, or any other educational tool. None of the advocates of radio education believe that radio will ever take the place of the teacher. The teacher is of the greatest importance in synthesizing the information gathered from the broadcast with the overall educational goals. It has long been recognized that radio is most useful when it supplements the classroom schedule rather than when any attempt is made to use it as a substitute for the teacher. "Until a teacher can look upon radio as only a part of her teaching situation (just as she now views textbooks, blackboards, victrolas, drawing materials, and even herself) she cannot adjust it to its proper place in classroom activities. Radio is not the be-all nor the end-all of classroom instruction."[3]

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3. Harrison, Margaret, Radio in the Classroom. New York: Prentice-Hall, Inc., 1937

Experience shows that lessons given entirely by radio are not generally satisfactory. However, it is interesting to note, in this connection, that there have been instances in which actual lessons given by radio proved to be of practical value. Such was the case in Chicago in September, 1937, when because of a serious poliomyelitis epidemic, the Chicago public schools were forced to close. At that time, the decision was made to broadcast lessons direct to the homes of the pupils. Seven radio stations donated time in fifteen minute periods throughout the day, and five newspapers carried a daily digest of each lesson to be broadcast - including directions, questions, and assignments for the pupils. These digests served as texts in the absence of books. Pupils were instructed to keep all work done in connection with these broadcasts and present them to their teachers as soon as school opened. Tests were drawn up and given to the children when they returned to school. Writing on the evaluation of this program, Harold Kent, director of the Radio Council, Chicago Public Schools, made the following statement:

"As far as the broadcasts to the children who were kept out of school because of the epidemic are concerned, we must admit that objective results were not particularly satisfactory. However, some interesting points were observed. Social studies seemed to be the most widely received program, with the most progress made in this field. Mathematics rated at the other end of the scale . . . . . The real results were of slightly different nature, however, in that the epidemic broadcasting brought home to the Superintendent of Schools the fact that we have a dramatic tool right in our very midst that has tremendous possibilities for education, and which up to this time was being completely ignored. The present Radio Council owes its existence to the epidemic.

Another interesting result is that a plan should be organized for just such an emergency so that its machinery can be thrown into action overnight in order that school work of an adequate though perhaps supplemental, sort can be carried on."[4]

Similarly, in Long Beach, California, the present radio activities are a result of an emergency program which was set up to take care of school children during the big earthquake in 1935.[5]

In Michigan, classroom broadcasting not only had its beginning but has found its highest development in the city of Detroit. As early as 1928, a few programs were broadcast in the form of speeches describing the activities of various departments of the Board of Education of that City. A few musical programs were also broadcast, but it was not until the fall of 1934 that any definite plan was formulated. In January, 1935, the Board of Education set up the Advisory Committee on Visual and Radio Education which was recognized as the first definite establishment of a broadcasting policy. Very few school systems in the country had from the very beginning such a definite and clearcut policy towards radio education as did Detroit. Its Board of Education had the vision and foresight to see radio as a vital part of every child's life, and sensed the importance of using it as a force for progressive education. Paul T. Rankin, former Supervising Director, Research and Informational Service,

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4. Atkinson, op. cit., p. 40

5. Atkinson, op. cit., p. 101

of the Detroit Public Schools, said that, "The question may well be asked as to why and how we started to use radio in the Detroit schools. Probably the basic reason is the tradition that the schools should be constantly on the alert to discover new and better means of instruction."[6] As a result, Detroit now ranks with several other cities throughout the country as having one of the outstanding overall programs in radio education in the public schools.

During the year 1933-34, the Flint Public Schools broadcast a weekly radio story period for the elementary schools. This series, however, continued for only a part of a year. In 1934, a weekly program on safety education was broadcast through the cooperation of the schools and the Police Department. Station WFDF worked with the music supervisor that same year to present a weekly musical program for the rural schools. This program was conducted in the manner of a class, and listening students kept careful notes on the broadcasts. It was reported that over one hundred rural schools in the county participated in this two-month course, and many of the city school children were reported to have been regular listeners.[7] At present, Station WFDF reports no actual classroom broadcasts "for the duration", but the station makes time available to school groups who wish to perform over the air.

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6. Stewart, Irwin, ed., Local Broadcasts to Schools, p. 12

7. Atkinson, op. cit., p. 80

Within the last five years, Pontiac High School has developed its broadcasting activity to the point where high school students produce radio programs for the other schools of the city. Students have learned both broadcasting and production techniques, and now have their own studio in the high school building. Every week, they broadcast from this studio, by remote control over the Pontiac station WCAR. Success is evidenced by the response of the schools throughout the city. Each week, letters come in from teachers and pupils expressing their appreciation of the series. The Pontiac Board of Education has taken another forward step by engaging Miss Ola Hiller, director of broadcasting at Pontiac High School, to spend the summer preparing scripts for next fall's broadcasts by the Pontiac High School workshop.

Radio, especially educational radio, is still in its infancy. Nevertheless, it has clearly become a recognized force in public school education. School systems in this country which consider radio a vital part of the educational program include those of New York, Cleveland, Philadelphia, Detroit, Chicago, Portland, Oregon, and San Francisco.[8] It would be well for schools to be investigating the possibilities of radio in the classroom, for soon after the war

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8. For more information about schools that have used radio in the classroom with marked success, see Irwin Stewart's Local Broadcasts to Schools.

is ended new educational stations will appear throughout the country. At that time, teachers who have been trained in the techniques of broadcasting and production will be in a position to join in a movement to make radio education more significant in all school systems.

CHAPTER II

PURPOSE OF SURVEY

As the use of radio in the public schools has become more widespread, many administrators, superintendents, teachers, and others interested in educational advancement, have become interested in knowing to what extent radio is being used as a supplement to teaching. With the increased interest in Frequency Modulation,[1] and with plans already under way for a state-wide network of FM (Frequency Modulation) educational radio stations in Michigan to be set up after the war, it seemed wise to have more definite information on the present use of radio in the public schools of Michigan. After consultation with the department of research at the State Office of Public Instruction in Lansing, it became evident that little was known about the use of radio in the schools of Michigan. The State Department of Public Instruction, as well as the Michigan Education Radio Association, felt that more information concerning the status of radio education in the State would be helpful to them in making plans for the future.

The purpose of this survey is to compile in one volume all the available data and information relative to the use of radio in the public schools of Michigan. In order to

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1. A newly developed type of transmission which will be in common use after the war. It is characterized by high fidelity, and freedom from static and interference.

present an overall picture of the use of radio in Michigan schools, it was necessary to find out the following: how many schools have facilities for receiving radio programs and transmitting these programs to the various classrooms; how many have recording machines to record programs from the air to be used in the classroom at some other time; how many have record-playing equipment capable of playing transcriptions in the classroom; how many schools do broadcasting.

Further information has been compiled on the number of schools now using radio programs in the classroom, the type of program used, the subjects that are at present most satisfactorily covered by radio programs, and the manner in which these programs are utilized by the teachers, including the student activities, if any, that are motivated by the radio programs. In addition, data have been recorded relative to the school administrator's opinion of the value of using radio in the classrooms, its possible use to the schools of the future, and the obstacles which must be overcome before the schools can use radio more extensively than at present.

In order to find out what programs for classroom use are available to the schools of Michigan, all radio stations in Michigan, as well as the four major networks in the country, have been contacted relative to the number and type of school broadcasts they originate. It was thought that this procedure might help those interested in educational

radio to discover what type programs are most needed at the present time. The compilation of such information should prove to be of value in the consideration of future programs to be broadcast over an educational network in the State.

It is hoped that through the present study, interest will be aroused in the further use of radio in the schools of Michigan, and that steps will be taken to bring about a greater utilization of both radio equipment and radio programs which are now being broadcast.

CHAPTER III

METHOD OF PROCEDURE

In order to make a study of this nature, it was necessary to decide upon methods of collecting data, evaluating the information, and compiling the information so that it would be immediately clear to the reader. Before deciding upon any one method, the writer conferred with authorities in the fields of research, psychology, tests and measurements, and examined other studies made in the field of radio education.

Letters were written to agencies interested in the study of radio education, including The Federal Radio Education Committee, Washington, D. C.; The Department of Radio Education, Ohio State University; and The Radio Council of the Chicago Public Schools. These letters were written for the express purpose of finding out just what these organizations had accomplished in the fields of radio research and of classroom broadcasting.

After securing the above information, the following procedure was decided upon: to send a postcard questionnaire to all of the superintendents of schools in the state of Michigan for the purpose of finding out how many school systems in the state make use of radio in the classroom. At the same time, additional information was requested relative to their past experience and their future interest in the use of radio.

COPY OF POSTCARD QUESTIONNAIRE

(Sent to 661 school superintendents in the State)

Do you make use of radio in classroom? Yes_____No_____
IF YOU DO NOT USE RADIO
I. Have you ever done so in the past? Yes_____No_____
II. Please check your reasons for not using radio:
1. Inferior programs_____
2. Programs at inconvenient hours_____
3. Static or interference_____
4. Inferior radio equipment_____
5. No radio equipment_____
6. Other reasons_____

III. If the above conditions could be corrected, would you be interested to use radio in the future? Yes_____No_____

School_____ Post Office_____

No. of Students_____ Superintendent_____

COPY OF ATTACHED LETTER

Michigan State College
East Lansing, Michigan

Dear Sir:

The attached postcard is being sent to all public schools of Michigan to find out which schools are using radio in the classroom. Those schools indicating their use of radio will be included in a future study which will be made under the auspices of Michigan State College and The State Department of Public Instruction, as a basis for planning future educational broadcasting.

We will greatly appreciate your prompt reply as we are anxious to get a complete return from all schools as soon as possible.

Yours truly,

Six hundred and sixty-one postcard questionnaires were sent out and the following list of schools are those that returned the postcard questionnaires:

Addison
Adrian
Akron
Alanson
Algonac
Allegan
Alma
Alpena
Alpha
Alston
Amasa
Ann Arbor
Arcadia
Armada
Ashley
Atlanta
Auburn Heights
Au Gres
Augusta (W. K. Kellogg)
Bad Axe
Baldwin
Bangor
Baraga
Bark River
Baroda
Barryton
Bath
Battle Creek
Battle Creek P. O.
  Lakeview
  Springfield
Bay City
Bay City P. O. (Bangor Twp.)
Bay Port
Bear Lake
Beaverton
Bellaire
Belleville
Bellevue
Benton Harbor P. O.
  Bard
  Fair Plain
Benzonia
Bergland
Berkley
Berrien Springs
Bessemer
Big Rapids
Birch Run
Birmingham
Blissfield
Bloomfield Hills
Boyne City
Boyne Falls
Breckenridge
Bridgman
Brighton
Brimley
Britton
Bronson
Brooklyn
Brown City
Buchanan
Buckley
Byron Center
Cadillac
Caledonia
Calumet P. O. (Centennial)
Camden
Capac
Caro
Carson City
Cement City
Center Line
Central Lake
Centreville
Champion
Channing
Charlevoix
Chassell
Chatham
Cheboygan
Chelsea
Chesaning
Clare
Clarkston
Clarksville
Clawson P. O. (Log Cabin)
Clayton
Climax
Clinton
Coleman
Coloma
Colon
Comstock Park
Concord

Constantine
Copemish
Croswell
Crystal Falls
Custer
Daggett
Dansville
Davison
Decatur
Deerfield
Delton
Detroit P. O.
  Beacon
  John Grace
  Redford Union
De Witt
Dexter
Dollar Bay
Dowagiac
Durand
East Grand Rapids
East Jordan
East Lansing
East Tawas
Eaton Rapids
Eau Claire
Edenville
Edmore
Edwardsburg
Elberta
Ellsworth
Elmira
Elsie
Escanaba
Essexville
Evart
Ewen
Fairgrove
Farmington
Fennville
Fife Lake
Flint
Flint P. O.
  Atherton
  Beecher
  Carman
  Utley
  Wolcott
Flushing
Fostoria
Frankenmuth
Frankfort
Fraser
Freeland
Fremont
Gagetown
Galien
Garden City
Genesee
Gladstone P. O. (Escanaba Twp.)
Glen Arbor
Gobles
Goodrich
Gould City
Grand Blanc
Grand Haven
Grand Ledge
Grand Marais
Grand Rapids
Grand Rapids P. O.
  Godwin Heights
  Kelloggsville
  Newhall
  Oakleigh
  Wyoming Park
Grass Lake
Grayling
Greenville
Grosse Ile
Gwinn
Hancock
Hancock P. O. (Ripley)
Harbor Beach
Harbor Springs
Harris
Harrison
Harrisville
Hart
Hartland
Haslett
Hastings
Hazel Park
Highland
Highland Park
Hillman
Holland P. O. (Beechwood)
Holly
Holt
Honor
Houghton P. O. (Portage Twp.)
Howard City
Howell
Hudson
Hudsonville

Hulbert
Ida
Inkster P. O. (Taylor Center)
Ionia
Iron Mountain
Iron Mountain P. O. (Felch Twp.)
Iron River (Bates Twp.)
Iron River (Iron River Twp.)
Ironwood
Ironwood (Roosevelt)
Ishpeming
Johannesburg
Jonesville
Kalamazoo
Kalamazoo P. O.
  Brucker
  Milwood
  Oakwood
  South Westnedge
Kaleva
Kalkaska
Keego Harbor
Kent City
Kinde
Kingsley
Kingston
Laingsburg
Lake City
Lake Leelanau
Lake Linden
Lake Odessa
Lake Orion
Lakeview
L'Anse
Lansing
Lansing P. O.
  Maple Grove
  North
  Pleasant Grove
  Stoner
Lapeer
Lawrence
Lawton
Leland
Leslie
Lexington
Lincoln Park
Linden
Litchfield P. O. (Litchfield Twp.)
Lowell
Ludington
Luther
Lyons P. O. (Lyons Twp.)
McMillan
Mancelona
Manchester
Manistee
Manistique
Maple Rapids
Marion
Marlette
Marne
Marquette
Marshall
Martin
Marysville
Mason
Mass City P. O. (Greenland Twp.)
Mattawan
Mayville
Mendon
Menominee
Merritt
Mesick
Michigamme P.O.(Michigamme Twp.)
Michigan Center
Middleville
Midland
Milan
Minden City
Mio
Mohawk P. O. (Allouez Twp.)
Monroe
Montague
Morenci
Morrice
Mt. Clemens
Mt. Pleasant
Munising P. O. (Munising Twp.)
Muskegon P. O.
  Henry St. & Glenside
  Jolman
Nahma
Napoleon
Nashville
National Mine
Negaunee
Newaygo P. O. (Brooks Twp.)
Newberry P. O. (McMillan Twp.)
New Buffalo
New Era
New Lothrop
New Troy
Niles

North Adams
North Branch
Northville
Norway
Novi
Okemos
Olivet
Onaway
Onsted
Ontonagon
Ortonville P. O. (Brandon Twp.)
Osseo
Otsego
Owendale P. O. (Brookfield Twp.)
Owosso
Painesdale P. O. (Adams Twp.)
Palmer
Parchment
Paw Paw
Pentwater
Perkins
Perry
Petersburg
Petoskey
Plainwell
Pontiac P.O.(Daniel Whitfield)
Portage
Port Austin
Port Huron
Port Huron P.O.(Kimball Twp.)
Portland
Posen P. O. (Posen Twp.)
Prescott P. O. (Richland Twp.)
Quincy
Ramsay P.O.(Bessemer Twp.)
Rapid River P.O.(Masonville Twp.)
Ravenna
Redridge P.O.(Stanton Twp.)
Reed City
Reese
Remus
Rexton P.O.(Hudson-Hendricks Twp.)
Richland
Rochester
Rochester P. O. (Stiles)
Rock P. O. (Maple Ridge Twp.)
Rockford
Rockland
Rogers City P.O.(Rogers Twp.)
Romeo
Romulus
Roscommon
Rose City
Roseville P.O. (Kern Road)
Royal Oak
Royal Oak P.O. (Madison)
Rudyard P.O. (Rudyard Twp.)
Saginaw
St. Clair
St. Clair Shores P. O.
  Lakeshore
  Lakeview
  South Lake
St. Ignace
St. James
St. Johns
St. Joseph
St. Louis
Saline
Sand Creek
Saranac
Saugatuck
Sault Ste. Marie P.O.(Bruce Twp.)
Scotts
Sebewaing
Shelby
Shepherd
Sheridan
South Haven
South Rockwood
Springport
Stanton
Stephenson
Sterling
Stevensville
Stockbridge
Sunfield
Suttons Bay
Swartz Creek
Tecumseh
Tekonsha
Temperance
Three Oaks
Three Rivers
Traverse City
Trenary
Trenton
Trout Creek
Twining P. O. (Arenac)
Union City
Unionville
Utica
Vandalia
Vermontville

Vestaburg
Vulcan
Wakefield P.O.(Wakefield Twp.)
Waldron
Walkerville
Walled Lake
Warren
Watersmeet (Watersmeet Twp.)
Watervliet
Wayland
Webberville
Wells
West Branch
White Pigeon
Whittemore
Williamsburg
Williamston
Winona
Wolverine P.O.(Nunda Twp.)
Wyandotte
Wyandotte P.O.
  Fletcher
  McCann
  Riverview
Yale
Ypsilanti
Ypsilanti P.O.
  Lincoln
  Roosevelt
  Willow Run

After making an analysis of the answers given on the post-card questionnaires, it became necessary to select all the schools that reported some use of radio and secure from them more detailed information for the study. To accomplish this objective, longer and more detailed questionnaires[1] were sent to the 201 superintendents who reported that they were making some use of educational radio. Instead of sending questionnaires to the superintendents in the larger cities[2], questionnaires were sent to the principals of representative senior high schools, junior high schools, and elementary schools. This method was used in order to get a more complete picture, since it was discovered that in the larger cities, there is little uniformity in the use of radio among the different schools - a condition which makes it almost impossible for the superintendent to answer one questionnaire for the entire

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1. For copy of longer questionnaire - see Appendix.

2. Ann Arbor, Grand Rapids, Flint, Jackson, Kalamazoo, Lansing, Muskegon, Pontiac, and Saginaw. Detroit is treated as a separate unit.

school system. The total number of longer questionnaires sent out was 320.[3] Of these 320, 166 were returned; and, from this return of over 50%, the facts compiled in this study were gathered.

Before sending out the longer questionnaire, conferences were held with Dr. Norman Borgerson, of the Department of Public Instruction, and secretary of the Michigan Education Radio Association; and, with Dr. Joseph Maddy, chairman of the MERA, in order to get their advice on the form and content of the questionnaire. Conferences were also held with several of the superintendents in representative towns of the State in order to get their ideas and suggestions.

Letters were written to the program directors of every radio station in Michigan, asking the following questions: "Do you broadcast any programs designed specifically for use in the classroom? If so, what is the nature of these programs? Are they local or network? Which network?" Similarly, letters were written to the four major networks to discover the type of classroom programs they are broadcasting. The answers received from the radio stations and the networks indicate the programs that are actually available to the public schools at the present time, and thus furnish a basis for the study of utilization of programs now on the air as well as to serve as a guide for

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3. This includes 207 superintendents who reported the use of radio in their classrooms as well as 113 additional principals of schools in the larger cities.

the planning of future radio programs for school use.

The Detroit Public School System is discussed in a separate chapter, since its radio educational program is unique in the State. Statistics on the use of radio in the schools of Detroit have not been included in this study because it would raise the average to such a degree that the picture as a whole would be distorted. The writer made a trip to Detroit for the purpose of observing the department of radio education of the Detroit Public Schools in operation. There, opportunity was given not only of visiting with the heads of the department, but of seeing the broadcasting activities of the Detroit City School system actually in progress.

A similar visit was made to the Pontiac High School Radio Workshop which is known throughout the State for its progressive work in broadcasting. Through these personal visits, it was possible to observe theory being put into practice, and to secure, first hand, the results of broadcasting activity in the schools, much of which is difficult to get from a questionnaire.

CHAPTER IV

SUMMARY OF THE RESULTS OBTAINED ON THE POSTCARD QUESTIONNAIRE

Out of a total of 661 postcard questionnaires sent out, 428, or 65%, were returned. Two hundred and one schools indicated that they made some use of radio, and 227 reported that they made no use of radio. Of the 201 reporting some use of radio, several of the superintendents qualified their answers by writing in "seldom", "occasionally", "very little", and similar expressions. On the basis of this information, Chart I, page 21, was constructed to indicate the percentage of schools in the following three categories: (a) Those schools that use radio, (b) Those that use radio occasionally, and (c) Those that make no use of radio.

A spot map showing the distribution of schools in Michigan that make some use of radio is located in the pocket of back cover of this thesis.

A. Schools Reporting No Use of Radio in Classrooms

In view of the fact that 227 schools reported that they make no use of radio in the classroom, it seemed desirable to investigate the data in this connection in order to find out whether the schools answering "no" had ever used radio in the past. Also to examine the reasons given for not using radio at present.

Of the 227 schools, 117, or 52%, reported that they had used radio at some time in the past but had discontinued the practice for one reason or another. A total of 25, or 10.5%,

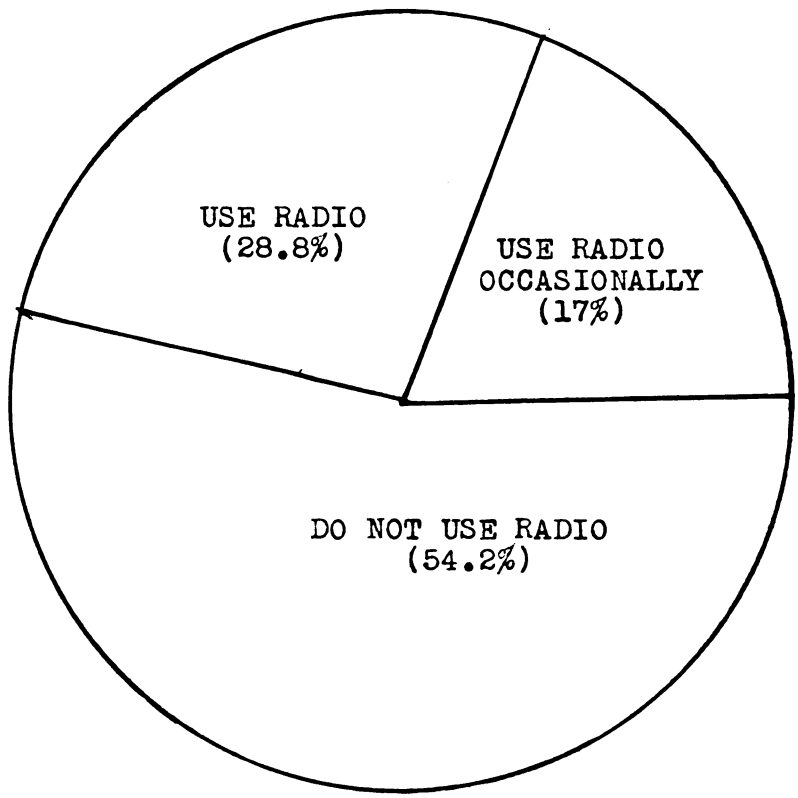

Chart I - Percentage of Michigan Public Schools Using Radio.

failed to indicate whether or not they had ever used radio in the past. Eighty-five, or 37.5%, of the schools indicated that they had never used radio in the classroom. These data are graphically shown in Chart II, page 23.

In an attempt to find out why the superintendents were not using radio in their school systems, the questionnaires directed their attention to such reasons as: Inferior Programs, Programs at Inconvenient Hours, Static or Interference, Inferior Equipment, and No Equipment. Space was also provided for additional reasons not included on the postcard questionnaire. Of the 227 schools reporting no use of radio in the classroom, 127 schools checked one item, 67 schools checked two items, 17 schools checked three items, and 16 schools checked none of the items. Of these 16 schools, six wrote in extra reasons other than the five listed on the postcard. Out of the 227 schools, 37 wrote in reasons other than those suggested on the questionnaire.

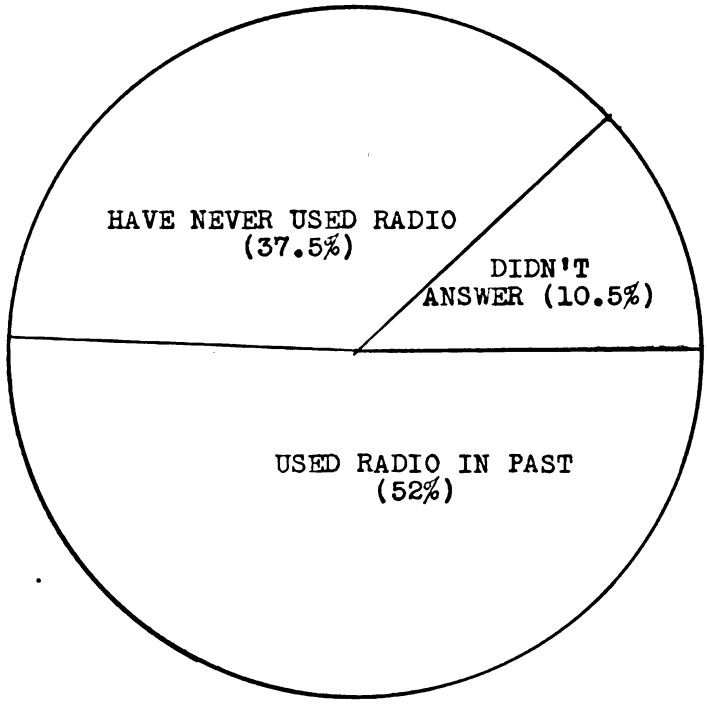

Chart II - Michigan Schools that do not now Use Radio. Showing Percentage of Schools that have Used Radio at Some Time in the Past.

The following tables show the distribution of schools according to the number checking each reason for the non-use of radio in their school systems:

TABLE I

127 schools checking one item

84	No Equipment
17	Inconvenient Hours
15	Inferior Equipment
9	Static or Interference
2	Inferior Programs
127	

TABLE II

67 schools checking two items

25	Inconvenient Hours and Inferior Equipment
12	Inconvenient Hours and No Equipment
7	Inconvenient Hours and Static or Interference
5	Inconvenient Hours and Inferior Programs
7	Static or Interference and Inferior Equipment
6	Static or Interference and No Equipment
1	Static or Interference and Inferior Programs
3	No Equipment and Inferior Equipment
1	No Equipment and Inferior Programs
67	

TABLE III

17 schools checking three items

7	Inconvenient Hours, Static and Interference, and Inferior Equipment
2	Inconvenient Hours, Static and Interference, and No Equipment
3	Inconvenient Hours, Static and Interference, and Inferior Programs
2	Inconvenient Hours, Inferior Programs, and Inferior Equipment
1	Inconvenient Hours, Inferior Programs, and No Equipment
1	Static and Interference, Inferior Equipment, and No Equipment
1	Static and Interference, Inferior Equipment, and Inferior Programs
17	

TABLE IV

Total number of schools checking each item

111	No Equipment
81	Inconvenient Hours
62	Inferior Equipment
43	Static or Interference
16	Inferior Programs

Of the 227 schools reporting no use of radio, 37 gave additional reasons for not using radio. Following are the reasons given, quoted directly from the postcard questionnaires, and classified according to subject matter:

POOR RECEPTION

"Too far away from stations."

"Distance too great from NBC, Mutual, and CBS stations. We are near Blue."[1]

"Can get only local station during daylight hours."

"Most of the time we couldn't get stations loud enough."

"Too far from good stations for reliable reception."

"Broadcasting stations we want have too low power. Can't get them."

"Stations not clear in our territory."

"The best program, Columbia School of the Air, cannot be received satisfactorily."

"Seem to be in a pocket here, so up-state programs are not usually audible."

"Bought expensive radio equipment but cannot get good reception."

"Unable to locate Columbia School of the Air this year."

"Bought expensive equipment. Cannot get anything."

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1. The Blue Network does not carry any programs designated as school broadcasts.

PROGRAMS NOT SUITABLE - OF LITTLE VALUE

"Programs either require undue effort on part of teachers or are mostly entertainment. Educational values are small."

"Programs are seldom of supplementary value to classroom work."

"Difficult to correlate program with classroom work."

"Programs do not fit into classwork."

"Not correlated with classwork."

"Programs had little educational value."

"Programs not suitable for certain grade levels."

LACK OF INTEREST, OR PROPER GUIDANCE

"Lack of pupil interest."

"Students do not care for radio programs."

"Requires a lot of organizing and enthusiasm on part of teachers to get some good out of it."

"No supervisor to push it."

"Board does not force it."

"Teachers not too well trained in radio education."

FINANCIAL DIFFICULTY

"Not enough funds to purchase enough for each room."

"No money with which to purchase radio."

"No funds to buy one at this time."

NEED REPAIRS

"Cannot get tubes for repairs."

"We have combination radio and phonograph but are waiting for proper wiring."

SCHEDULING DIFFICULTIES

"Usually interrupts schedule of classes."

"Hard to correlate with time and subject matter."

LACK OF EQUIPMENT OR ROOM

"Not enough equipment."

"Lack of rooms and proper arrangement of equipment."

"Equipment in use for gym classes."

"Had to bring radios in. School doesn't own one."

"Inconvenience. Students go to my home, but not often."

In order to find out how many of the schools reporting "No use of radio" would be interested in using radio providing conditions could be changed, the question was asked, "If the above conditions could be corrected, would you be interested in using radio in the future?" The percentage of those who replied in the affirmative was 84.4%, those not interested comprised .4%, 3.9% were uncertain, and 11.3% did not answer. The results are shown on Chart III, page 30.

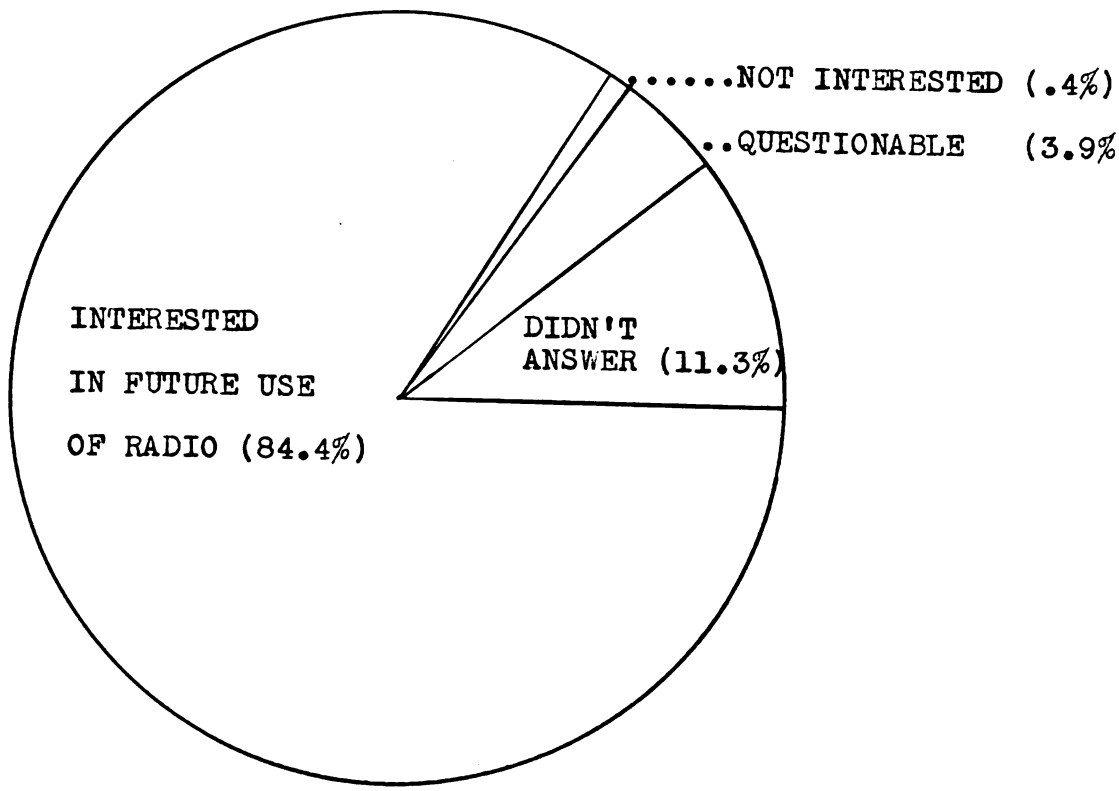

Chart III - Percentage of those not Using Radio that are Interested in its Future Use.

SCHOOLS REPORTING SOME USE OF RADIO

Two hundred and one schools reported some use of radio in the classroom. Even though these schools were not expected to do so, 105 of them checked reasons listed on the questionnaire under the heading "Reasons for Not Using Radio". It is probable that the items checked represent complaints these schools wished to make or reasons why they were not using radio more.[1] Of these 105 schools, 46 checked one item, 43 checked two items, 8 checked three items, 6 checked four items, and 2 schools checked all five items. Tables V, VI, VII, and VIII show the reasons given by the various groups for "not using radio more".

TABLE V

46 schools checking one item

0	checked Inferior Programs
28	checked Programs at Inconvenient Hours
5	checked Static or Interference
10	checked Inferior Equipment
3	checked No Equipment
46	

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1. Several schools wrote in the word "more" at the end of the question.

TABLE VI

43 schools checking two items

18	checked Inconvenient Hours and Inferior Radio Equipment
9	checked Inconvenient Hours and Static or Interference
7	checked Inconvenient Hours and Inferior Programs
4	checked Inconvenient Hours and No Equipment
3	checked Static or Interference and Inferior Equipment
1	checked Static or Interference and Inferior Programs
1	checked Static or Interference and No Equipment
43	

TABLE VII

8 schools checking three items

3	checked Inferior Programs, Inconvenient Hours, and Inferior Equipment
1	checked Inferior Programs, Inconvenient Hours, and Static
2	checked Static, Inferior Equipment, and No Equipment
2	checked Inconvenient Hours, Static, and Inferior Equipment
8	

TABLE VIII

6 schools checking four items

3	checked Inferior Programs, Inconvenient Hours, Static and Inferior Equipment
1	checked Inferior Programs, Inconvenient Hours, Inferior Equipment, and No Equipment
2	checked Static, Inconvenient Hours, Inferior Equipment, and No Equipment
6	

TABLE IX

Total for Schools Reporting Some Use of Radio

Reasons Checked	Number of Schools Checking Each Reason
Inferior Programs	16
Inconvenient Hours	78
Static or Interference	29
Inferior Equipment	44
No Equipment	13

To summarize, the results obtained from the postcard questionnaires show the following: 28.8% of 428 schools make use of the radio in the classroom, 54.2% do not use radio, and 17% use radio occasionally.

One hundred and seventeen, or 52%, of the 227 schools that report no use of radio, have used it at some time in the past. The reason given most frequently for not using radio by these 117 schools is "No Equipment". The next most frequently checked reason is "Programs at Inconvenient Hours".

After tabulating the additional reasons written in by the superintendents, it is found that most of the reasons come under the heading of "Poor Reception". The next largest group of reasons come under the heading "Programs Not Suitable - of Little Value".

If the conditions which hinder the present use of radio could be corrected, 84.4% of those who do not use radio at present would be interested in making use of it.

Frequency distribution charts, constructed for both users and non-users of radio, indicate no correlation between size of school and use of radio.

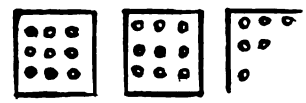
CHAPTER V

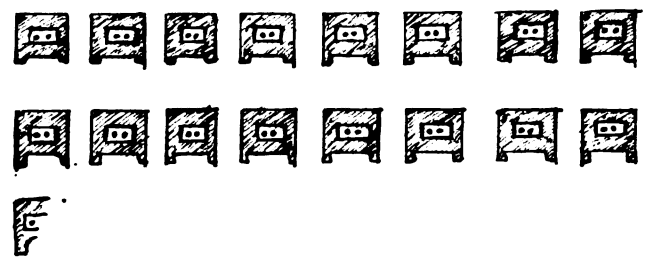
SUMMARY OF THE RESULTS OBTAINED FROM THE LONGER QUESTIONNAIRE

A. EQUIPMENT

In making a study of the existing radio equipment in the public schools of Michigan, three types of equipment are considered: equipment for receiving radio programs, equipment for playing records and transcriptions, and, equipment for making recordings. These three types are designated respectively as the radio receiver, the playback, and the recorder.

Equipment for receiving radio programs includes central sound systems, individual stationary radios, and portable radios. Central sound is a system by which a radio program is received in some central location in the school, usually the office, and from there is fed out over a public address system to any classroom desiring it. The individual stationary radio is the cabinet type of radio which remains in one room, and the portable radio is any radio which can be carried from one room to another. Chart IV, page 36, gives an overall picture of the type and amount of radio receiving equipment found in the public schools of Michigan.

CENTRAL SOUND SYSTEM (27) 

STATIONARY RADIOS (163) 

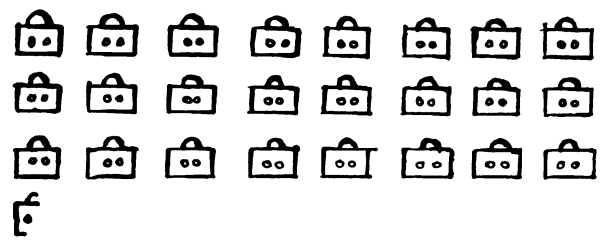
PORTABLE RADIOS (245) 

Chart IV - Radio Receiving Equipment in the Public Schools of Michigan - 166 schools reporting. (Each figure represents 10 radios or radio systems)

Twenty-seven schools reported that they have central sound systems. Twenty-two of these have central sound and no other type of radio. Others vary in their combinations of central sound systems and other types of radios, both stationary and portable. Table X gives the information for the 27 schools which have central sound systems.

TABLE X

Number of Schools	Number and Type of Radios
22	Central sound and no other type
1	Central sound, two individual stationary, and one portable
4	Central sound and varying numbers of portables (1 to 4)
27	

Sixty-five schools report the possession of stationary radios. These schools are divided here into smaller groups according to the particular combinations of stationary and portable radios which they possess. Table XI shows the entire group of 65 schools and the number of stationary radios owned by each.

TABLE XI

Number of Schools	Number of Radios
35	1
13	2
7	3
4	4
2	5
1	6
1	8
1	10
1	30
65	

Thirty-one of the 65 schools report the possession of stationary radios and no other kind of receiving equipment. Table XII shows the distribution of radios among these 31 schools.

TABLE XII

Number of Schools	Number of Radios
15	1
4	2
7	3
1	4
1	6
1	10
1	30
31	

Thirty-four of the 65 schools reported that they have both stationary radios and portables. Nineteen of these have one stationary radio and from one to eight portables Table XIII shows the distribution of radios among these 19 schools.

TABLE XIII

Number of Schools	Number and Type of Radios
13	1 stationary and 1 portable
2	1 stationary and 2 portables
1	1 stationary and 3 portables
1	1 stationary and 4 portables
1	1 stationary and 5 portables
1	1 stationary and 8 portables
19	

Nine schools reported the possession of two stationary radios and from one to two portables. Table XIV shows the distribution of radios among these 9 schools.

TABLE XIV

Number of Schools	Number and Type of Radios
6	2 stationary and 1 portable
3	2 stationary and 2 portables
9	

Table XV shows the distribution of radios among the remaining six schools which have stationary radios.

TABLE XV

Number of Schools	Number and Type of Radios
2	4 stationary and 4 portables
1	4 stationary and 1 portable
1	5 stationary and 2 portables
1	5 stationary and 1 portable
1	8 stationary and 1 portable
6	

Seventy-four schools report portable radios and no other type. Table XVI shows the distribution of radios among these 74 schools.

TABLE XVI

Number of Schools	Number of Radios
39	1
19	2
5	3
7	4
2	5
1	7
1	10
74	

Ten schools reported that teachers brought in their own personal radios for the classroom use, and one superintendent stated that he took his students to his home in order to make use of radio in connection with their classwork.

The playback, or equipment for playing records, is a vital part of any school's equipment. In Michigan, playbacks are owned by 103 schools, 27 schools reported no equipment, and 36 failed to answer. In order to play radio transcriptions, the playback must have a turntable which runs at 33 1/3 rpm. For this reason, in making a survey of the playback equipment in the schools, it is important to know

the specific rate of speed of the turntables on the individual machines. Table XVII shows the 103 schools which have playback equipment classified according to the rates of speed.

TABLE XVII

Number of Schools	Rate of Speed
90	78 rpm
3	33 1/3 rpm
10	78 and 33 1/3 rpm
103	

Record-playing equipment owned by 103 schools out of 166 would seem to be a good showing. However, 90 of these schools have equipment capable of playing records at a rate of 78 rpm only which virtually eliminates the use of educational transcriptions. Thus, it is seen that only 13 of the 103 schools owning playback equipment are equipped to play transcriptions, and only those 13 schools can make use of transcribed radio programs. The above information, therefore, indicates a definite weakness in the playback equipment owned by the Michigan schools.

Another essential part of the school's equipment is the recorder, or equipment for making records. It is found that 26 schools in Michigan own recorders. Here, too, in order to make transcriptions, it is necessary that the machines

record at the rate of 33 1/3 rpm. Table XVIII shows the 26 schools which have recorders, classified according to the rates of speed at which they record.

TABLE XVIII

Number of Schools	Rate of Speed
9	78 rpm
3	33 1/3 rpm
6	78 and 33 1/3 rpm
8	Failed to indicate rate of speed
26	

Thus, it is seen that only 9 schools have equipment which is capable of making transcriptions at the rate of 33 1/3 rpm.

A few of the advantages of the playback and of the recorder, when built to run at a speed of 33 1/3 rpm, are noted here. If a school has the facilities for playing transcriptions, it can make use of many more good classroom programs than would otherwise be possible. Transcribed radio programs are proving to be one of the most satisfactory methods of radio education. Transcriptions are used when repetition of a particular broadcast is desired, either for the purpose of allowing more classes to hear the program, or when the teacher wishes to give special emphasis to the subject broadcast. When transcriptions of radio programs are used, they may be played at exactly the moment desired, thus eliminating one of the most

frequently mentioned handicaps to the use of radio in the schools - that of radio programs coming at inconvenient hours.

With a recorder, a school can transcribe radio programs directly from the air for future classroom use; in schools where the students broadcast, permanent records can be made of their radio programs; and, besides serving as a means of checking on student performances for purposes of later criticism, a recorder may be the means of building a transcription library.

Radio receiving equipment is much more adequate in the public schools of Michigan than is either playback or recording equipment. Although 166 schools report some type of receiving equipment, only 13 of these schools are able to play transcriptions, and only 9 are able to make transcriptions.

Following are some of the comments made by superintendents concerning equipment in their schools as quoted directly from their questionnaires:

"Little use here of radio. Lack of proper equipment and interest low as result."

"Do not have equipment necessary."

"Present receiving equipment inadequate for good results."

"Have central sound system, but no longer working. Old and crude."

"Had fine central sound system, but it became necessary to close off part of building where master set was."

"Lack of equipment biggest problem."

"Have not enough radios."

"Old building unequipped for radio broadcasts. Own one rather poor small radio - difficult to get anything but local stations."

"Each school should have recording equipment. Then use transcription in class at time needed and wanted."

"Programs very good but we should have equipment."[1]

B. PROGRAMMING

In order to discover what radio programs are available to the public schools for classroom use, letters of inquiry were written to the twenty-six radio stations in Michigan.[2] The results of this inquiry show that the following radio stations carry regular programs designed specifically for use in the classroom: WKZO, Kalamazoo, WCAR, Pontiac, WKAR, East Lansing, WELL, Battle Creek, WJR, Detroit, WWJ, Detroit, WXYZ, Detroit, WJLB, Detroit, and WJBK, Detroit.

WKZO carries daily the "American School of the Air", broadcast by the Columbia network. WKAR originates once each week a program of Rural School Music, which sometimes is accompanied by dramatizations. Station WELL reports a weekly broadcast called the "Spelling Bee", in which students participate both in the studio and in the classroom. WCAR carries one fifteen minute program each week, which is

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1. This school has enrollment of 112, and the students go to the superintendent's home to use radio.

2. As listed in Broadcasting Yearbook, 1945.

produced by the Pontiac High School Radio Workshop, and designed especially for elementary schools. The contributions of the five Detroit stations are discussed in Chapter VI.

Two stations, WJMS, Ironwood, and WHDF, Calumet, report no specific broadcasts intended for classroom use, but mention various broadcasting activities of the local schools which are carried over their stations. These consist for the most part of musical programs and occasional dramatic presentations.

WFDF, in Flint, reported, "No broadcasts designed specifically for use in the classroom". However, it is found that the public schools of Flint list public school programs of WFDF as programs to which they occasionally listen. These programs are evidently for the purpose of strengthening public relations or for student training in broadcasting rather than for use in the classroom.

Table XIX lists the 17 radio stations which responded, and their replies concerning classroom programs broadcast by them.

TABLE XIX

Radio Stations	Programs for Classroom Use
WKAR, East Lansing	Rural School Music
WJR, Detroit	Detroit Public Schools
WWJ, Detroit	Detroit Public Schools
WJBK, Detroit	Detroit Public Schools
WOOD, Grand Rapids	None
WLAV, Grand Rapids	None
WEXL, Royal Oak	None
WKZO, Kalamazoo	Columbia School of the Air
WIBM, Jackson	None
WSAM, Saginaw	None
WBCM, Bay City	None
WKBZ, Muskegon	None
WFDF, Flint	None
WCAR, Pontiac	Pontiac High School Workshop
WELL, Battle Creek	"Spelling Bee" - local
WHDF, Calumet	None (broadcasts by school-drama groups, glee clubs)
WJMS, Ironwood	None (broadcasts by school - band concerts - remote from school)

With so few programs broadcast for the classroom, it is not surprising to find such a small number of schools that listen to radio programs with regularity. The program listened to by the greatest number of schools is Columbia's "American School of the Air". However, there are only thirteen schools that listen regularly even to this program. The program listened to next most frequently is "Schooltime", broadcast from WLS, Chicago, to which six schools listen at least once a week. Another program listened to with regularity is the weekly broadcast of the Pontiac High School Radio Workshop, with five schools which report they are regular listeners. Four schools listen every week to the Rural School Music Program broadcast by WKAR, East Lansing.

Table XX gives the data regarding programs listened to regularly by the schools of Michigan.

TABLE XX

Program	Number of Schools Listening
AMERICAN SCHOOL OF THE AIR	13
SCHOOLTIME	6
PONTIAC HIGH SCHOOL RADIO WORKSHOP	5
RURAL SCHOOL MUSIC	4

Table XXI shows the programs listened to occasionally by the public schools of Michigan.

TABLE XXI

Program	Number of Schools Listening
AMERICAN SCHOOL OF THE AIR	5
FLINT PUBLIC SCHOOL BROADCASTS	4
PONTIAC HIGH SCHOOL RADIO WORKSHOP	2

No other specific classroom broadcasts are mentioned by the schools reporting. Listening, in general, appears to be irregular and without plan. Only nine schools reported that they listen regularly to newscasts. There are just forty schools that report regular listening to any program. When asked to list programs listened to regularly (at least once a week), superintendents made such answers as "Various Programs" and "Whatever we can get", indicating a hit or miss method of listening.

Superintendents were also asked to mention the fields in which they found (a) the strongest radio programs broadcast and (b) the weakest programs. According to their answers the strongest programs are those in the field of Music, with Current Events a close second. Of 125 replies[3], 61 indicated they favored Music, 53 Current Events, and

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3. Many superintendents said they did not use radio enough to warrant their answering this question.

17 Science. Very few comments were given as to the weakest programs. Of those given, Science was mentioned most frequently. Current Events, English, and Art were mentioned in the order named.

C. UTILIZATION

It is fully as important to know what use is made of both radio equipment and radio programs as it is to know the extent of radio equipment and programs. A discussion of utilization covers the matter of how much the equipment is in use and in what manner it is used, what type of pre-broadcast and post-broadcast activity accompanies the classroom radio programs, and the ways in which radio is used most satisfactorily as a learning aid. Also included are some factors which prohibit a more extensive use of radio by the schools.

From the returned questionnaires, it is found that radio equipment in the schools of Michigan is in use a total of 382 hours per week, which is an average of 2 1/4 hours per school. Actually, the greatest number of superintendents, or 20, reported using equipment on an

average of one hour a week. Table XXII shows the distribution of schools according to the number of hours their equipment is in use.

TABLE XXII

Hours in Use	Number of Schools Reporting
Less than one	16
One	20
Two	17
Three	13
Four	5
Five	14
Six	1
Seven	2
Eight	1
Nine	2
Ten	7
Eleven	1
Twelve	1
Twenty-five	1
Thirty-five	1
No Answer	28
Indefinite	36
	166

The methods of utilization of radio programs will naturally vary with the content of the programs and also with the different educational objectives of the schools. However, a classroom broadcast often includes some form of pre-broadcast and post-broadcast activity. From reports of leading schools throughout the country concerning their use of radio in the classroom, it is evident that they believe a broadcast is most effective when it includes adequate preparation and when it results in various types of follow-up activity. The following report is given of the Portland, Oregon, radio program:

"Portland has emphasized preparation of its classrooms before the broadcast is heard. This has required that the teachers shall have pre-broadcast materials in order that they may know the nature and scope of the subject to be treated. Pupils have been encouraged to take notes during the time the program is on the air for use in later discussion by them and the teacher when the subject of the broadcast comes up for review. So far as possible, visual aids are provided in advance of the classes scheduled to hear a program."[4]

Harold W. Kent, Director Radio Council, Chicago Public Schools in 1942, has this comment to make in regard to methods of classroom utilization of radio programs:

"In general I can say that the pre-broadcast period should concern itself chiefly with motivation. As this motivation increases as to earnestness in listening, it eventually unfolds into the area of follow-up activities. In this matter of after-broadcast activities, we are concerned with the entire potential situation. It may be an increase in the amount of reading done; it may fall in the line of increased tours and excursion activities; it may result in diaries and scrap books; it may result in merely a pleased feeling."[5]

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4. Atkinson, op. cit., page 70

5. Ibid., page 42

Intelligently planned broadcast sessions require considerable originality and resourcefulness on the teacher's part.

"Teachers must watch themselves lest they make radio listening monotonous by always requiring the same set method of follow-up procedure. Follow-up work should vary as much as the programs themselves; no techniques or methods of utilizing one program can apply to all programs."[6]

In general, post-broadcast activity is found to occur more frequently than pre-broadcast activity. "Since it is difficult to determine in advance the exact nature of every radio program, it is probable that follow-up work covers the most important phase of utilization of radio in the school. Through activities arising from a program, the children pull together the threads of the program and fit them into their regular work."[7]

In the schools of Michigan, there is slightly more post-broadcast activity than pre-broadcast. Table XXIII gives the number of schools reporting both types of activity.

TABLE XXIII

Pre-broadcast		Post-broadcast	
Yes	77	Yes	91
No	50	No	24
Uncertain	18	Uncertain	18
No Answer	21	No Answer	33
	166		166

6. Harrison, op. cit., page 72

7. Ibid., page 72

Some schools express a desire to make more use of radio in the classroom, but at the same time feel handicapped in their efforts to do so. The following comments are quoted directly from the returned questionnaires and indicate some of the difficulties encountered by the schools in their attempt to use radio. The comments have been classified according to subject matter.

SCHEDULING DIFFICULTIES

"Programs we wish do not occur at time when classes are in session."

"Time arrangements difficult to coordinate."

"Our main difficulty is that radio programs overlap classroom hours - nothing can be done except re-scheduling of classes in individual buildings."

"Impossible to fit schedule and radio programs together for more than a few people."

"Difficult to match the radio program with the class that we wish to have hear it."

"Unable to develop schedules to coincide with broadcast."

"Difficult to get broadcasts into school programs; information is often 'cold'; very difficult to schedule classes to listen to a particular broadcast without seriously upsetting school schedule."

"Come at wrong time. Transcriptions sent by mail in advance might be better."

"Almost impossible to synchronize radio program of station with school schedule of classes and subject matter."

"All programs come about same time. Recordings would help for individual classroom use."

"Our programs not flexible enough to make best use of programs without recording them."

POOR RECEPTION

"We can use our radio very little. We get so much interference that the local stations are the only ones available."

"We try to get important broadcasts but daylight reception is very poor and unsatisfactory."

"Too far away from broadcasting stations."

"Impractical - because of local interference. FM radio will solve our problem."

"Reception in our vicinity is very poor. We cannot get stations during the day except our local."[8]

"Unable to get daytime reception from Detroit or Chicago."

"Inadequate reception makes programs unreliable."

"Suggest all local stations for better reception."

"We need better daylight reception from distant stations."

"Difficult to get some stations we want."

FAILURE OF PROGRAMS TO MEET SCHOOL NEEDS

"Programs do not fit 'Courses of Study'. Effort should be made to plan radio programs to fit educational school programs."

"Difficult to get program that fits events of school work."

"Too few programs are practical for school work."

"Difficulty in fitting into classroom needs. Also, the time scheduling is unsatisfactory."

"Hard to get radio programs into a school program because they do not always fit the units being studied."

"When programs are arranged by outside source - outside own school system - they largely do not fit courses of study."

"Suggest FM under school control to meet school needs."

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8. Local station does not carry any school broadcasts.

D. BROADCASTING

According to R. R. Lowdermilk[9], the production and broadcasting of radio programs can be expected to assume an increasingly important role in formal education. In schools where this type of student activity has become an established practice, the following definite values are claimed for broadcasting:[10]

(1) Tends to develop genuine radio-program discrimination by making students conscious of the attributes which make for superior quality in any radio program.

(2) Renders a service with broadcasts designed (a) for use by other student groups as programs for supplementing classroom instruction, and (b) for interpreting the work and purposes of the school to parent organizations.

(3) Develops on the part of participating students an effective style in verbal expression, and the basic skills and understandings that are involved in radio-program production.

(4) Emphasizes the importance of group planning and cooperative effort.

Thus, it is seen that the process of broadcasting is an educative process in itself. Broadcasting is an outlet for creative expression. It is when a student works with others in the total production of a fine radio program that he

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9. Research Associate on the staff of The Evaluation of School Broadcasts, a research and service project sponsored by The Federal Radio Education Committee.

10. R. R. Lowdermilk, The School Radio Sound System, pages 41-42.

receives perhaps the greatest value from "being on the air". Here, he learns the true meaning of teamwork, he learns to think quickly, and he learns to subordinate his desire for recognition to the benefit of the entire group. The average student does not have a chance to "star" in a radio production. It is a matter of the closest cooperation from beginning to end.

Of the 166 superintendents reporting in this survey, 58 report some type of broadcasting activity by the school. Fifteen schools broadcast over a radio station, or "on the air" only, 29 schools broadcast within the school only over the public address system, and 14 schools do both types of broadcasting.

Schools were asked to list the types of programs they broadcast. Programs broadcast over radio stations, or "on the air", include musical programs, safety programs, debates, and dramatizations. In some communities the Future Farmers of America have given broadcasts, and it is reported that many school projects are shared with the public by way of radio. According to this study, most of the programs broadcast by the schools over radio stations are for the purpose of interpreting the schools and their work to the community. This type of broadcast gives the students experience before the microphone and gives the parents an opportunity to hear their children perform and to see what progress they are

making in school. Public relations work of this sort has a definite place in student broadcasting. Moreover, when students produce radio programs specifically for classroom use, two student groups are benefited at the same time. Value is received both by the students who are broadcasting and by the students who are making use of the program material in their classroom work. An example of this is found in the activities of a high school[11] radio workshop recently visited. Here the students are broadcasting weekly programs for use in the grade schools of the City. While the high school students are learning the techniques of acting and production, the elementary students are benefiting from the resulting radio programs which they receive each week. The older students gain satisfaction from knowing that their broadcasts are actually received and used by the children who, in turn, write them letters of appreciation and criticism.

The list of programs broadcast over the school public address systems includes the following: sports, music, drama, debates, group reading, talks, daily religious services, English classwork, quiz programs, school bulletins, lost and found notices, and war stamp and bond drives. This type of broadcasting also helps to develop radio techniques.

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11. Pontiac

In fact, the use of the public address system is often the starting point for later student broadcasts over the airwaves. One of the schools in this survey built its own sound-proof studio by enclosing one end of a classroom, and installing the public address system within. Soon the students became so proficient in broadcasting that the school arranged for a hookup with the local radio station. The students are now broadcasting a weekly dramatic show "on the air".

Although 58 schools report some broadcasting activity, only one of these schools stated that the person in charge of broadcasting is employed specifically for that job. In the other schools reporting broadcasting activity, the task of producing radio programs is handled by a faculty member, as an extra job; and only one-third of these faculty members have had any special training in radio techniques.

Another matter of interest in connection with broadcasting is to discover whether those schools who do their own broadcasting evaluate radio programs any differently from those schools that do not broadcast. For the purpose of investigating this matter, the schools have been classified below into groups according to the extent of their broadcasting, and tables have been constructed showing

how each group evaluates radio programs for the classroom. Table XXIV is presented first for purposes of comparison. It shows the percentages of the entire group, broadcasting and non-broadcasting, according to their evaluation of the worth of radio programs for classroom use.

TABLE XXIV

Evaluation	Percentage of Schools
Impractical	24%
Practical	28%
Very Helpful	22%
Indispensable ("almost")	1%
No Answer	25%
	100%

Table XXV shows how the 93 schools that have no broadcasting activity whatever, evaluate radio programs for school use.

TABLE XXV

Evaluation of Programs	Percentage of Schools
Impractical	27.0%
Practical	31.2%
Very Helpful	20.4%
Indispensable	1.0%
No Answer	20.4%
	100.0%

Table XXVI shows how the 15 schools that broadcast "on the air" only, evaluate radio programs.

TABLE XXVI

Evaluation of Programs	Percentage of Schools
Impractical	40%
Practical	27%
Very Helpful	20%
Indispensable	0%
No Answer	13%
	100%

Table XXVII shows the evaluation of radio programs by the 29 schools that broadcast over public address system only.

TABLE XXVII

Evaluation of Programs	Percentage of Schools
Impractical	20.7%
Practical	34.5%
Very Helpful	34.5%
Indispensable	0.0%
No Answer	10.3%
	100.0%

Table XXVIII shows the evaluation of radio programs by the 14 schools that broadcast both "on the air" and over the public address system.

TABLE XXVIII

Evaluation of Programs	Percentage of Schools
Impractical	21.3%
Practical	29.0%
Very Helpful	21.3%
Indispensable	7.1%
No Answer	21.3%
	100.0%

From examination of the foregoing tables, it may be seen that when the schools are considered from the standpoint of their broadcasting activity, there is almost no change in their evaluation of radio programs from the evaluation of the entire group of schools, regardless of classification. The only figure which varies enough to be significant is in Table XXVI, showing the 15 schools that broadcast "on the air" only. Forty percent of these schools considered radio programs "Impractical". This is 13% more than any other group which checked programs as "Impractical".

E. EVALUATION

Superintendents and principals were asked to give their opinions of the value of radio programs for classroom use.[12] The distribution of answers for the entire group is shown by Table XXIX.

TABLE XXIX

EVALUATION OF RADIO PROGRAMS FOR CLASSROOM USE
166 superintendents reporting

Evaluation	Percentage of Schools
Impractical	24%
Practical	28%
Very Helpful	22%
Indispensable ("almost")	1%
No Answer	25%
	100%

To investigate further, it was necessary to find out what correlation, if any, there is between the evaluation of radio programs by the superintendents and the type of equipment owned by their schools. This information is shown by Tables XXX, XXXI, XXXII, and XXXIII.

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12. The question was asked, "Do you find radio programs for the most part (a) Impractical for classroom use (b) Practical (c) Very Helpful, or (d) Indispensable

TABLE XXX

27 Schools Having Central Sound Systems

Evaluation	Percentage of Schools
Impractical	11%
Practical	26%
Very Helpful	15%
Indispensable	4%
No Answer	44%
	100%

TABLE XXXI

31 Schools Having Stationary Radios Only

Evaluation	Percentage of Schools
Impractical	22.6%
Practical	32.2%
Very Helpful	22.6%
No Answer	22.6%
	100.0%

TABLE XXXII

74 Schools Having Portable Radios Only

Evaluation	Percentage of Schools
Impractical	29%
Practical	26%
Very Helpful	26%
No Answer	19%
	100%

TABLE XXXIII

34 Schools Having Combination of Stationary and Portable Radios

Evaluation	Percentage of Schools
Impractical	29%
Practical	32%
Very Helpful	21%
Indispensable ("almost")	3%
No Answer	15%
	100%

Thus, it is seen that when the entire group is broken down and classified according to types of radio equipment possessed, there is very little deviation in any one group from the percentages of the entire group shown by Table XXIX. The greatest difference is shown by Table XXX. There it is seen that the schools having central sound system had a smaller percentage (11%) of the superintendents reporting radio programs "Impractical" than any other one group. This variance is not compensated by any corresponding greater percentage in one of the higher evaluation groups. If the difference is made up anywhere, it must be in the high percentage of 44% of superintendents in that group giving "No Answer".

From this study, we find that the opinions of superintendents regarding the value of radio programs for classroom use are very much the same, regardless of the type of equipment installed in their schools. Percentages of schools are so evenly distributed among the different evaluations that an unusually neutral picture is given. There is neither great enthusiasm for nor strong feeling against radio programs for classroom use. Perhaps radio has reached a certain level - that of commanding a measure of respect - and now awaits further developments and improvements before being fully accepted by the public schools of Michigan. Chapter VII, on The Future of Radio in the Schools of Michigan, discusses some of these possible developments and improvements.

CHAPTER VI

DETROIT

In 1935, the Detroit Board of Education inaugurated a definite radio educational policy for the public school system of that City. Their's was no hit-or-miss method. The members of the Board realized that radio was becoming an instrument of education, a medium of great influence on children as well as adults, and they began to make careful plans for use of radio in the schools. Definite objectives were set up. At first, the Board members were interested only in interpreting the work of the schools to the people of Detroit, and through a program of radio information, many of the citizens were made conscious for the first time of the school program. This first objective - that of interpreting the schools to the community - has been continued through the years, and other objectives have been added until now "the public school radio programs in Detroit are directed toward the attainment of four general objectives: (1) to interpret the schools to the community by means of radio, (2) to supplement other forms of classroom instruction by the use of radio, (3) to provide selected pupils with learning experiences in broadcasting radio programs; and (4) to develop in all pupils better taste and discrimination in radio-listening."[1]

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1. Stewart, op. cit., page 15

At present there is a Department of Radio Education connected with the public school system in Detroit which functions full time. Besides Mrs. Kathleen Lardie, the head of the department, there are two secretaries, and two assistants to Mrs. Lardie. The assistants are in touch with every phase of the department's activity; they are called upon to write scripts, to direct and produce radio programs, and to visit the various schools to get pupil reaction to their radio programs. At the present time, the most important objective in the minds of the school administrators of Detroit is "to supplement other forms of classroom instruction through the use of radio." The Department of Radio Education strives to keep constantly in mind its audience, namely, the school children. The Department's obligation is first of all to these children. Therefore, even though the training in broadcasting which the students receive is becoming a large part of radio education, this training is considered incidental to the producing of a good program for the classroom. Student talent is utilized as widely as possible, but students are never used in a broadcast for the sake of giving them training, if there is any chance of its proving detrimental to the radio program.

In order to provide the best possible radio programs for the children of Detroit, frequent conferences are held with representative teachers from the City school system. The head of the department of radio education consults at regular intervals with a council of teachers from schools throughout the City relative to future programs to be broadcast. At this time, many problems are ironed out, and ideas for new programs are submitted.

Great care is taken in the preparation of scripts for these radio programs. When a script is to be written, the staff member assigned to the job confers with a teacher who is an authority on the subject and conducts whatever research is necessary before the actual writing takes place. Considerable re-writing is necessary, and the script is carefully checked and edited by the head of the radio department. About six hours of minimum rehearshal is used for one fifteen minute broadcast. Students taking part in the broadcasts are selected from the department files.

Any student may audition for broadcasting at regular times set aside for that purpose. At the time of auditioning, a card with all of the student's qualifications is filled out. This card shows what roles he is capable of playing and what experience he has had. A record of his scholastic standing is also kept. In order to take part in the public school broadcasts, a student must maintain a

satisfactory grade average in his school work, and must have the written permission of his parents. Desire to participate in the broadcasts has often proved to be a stimulus to the student in all his school work.

The Department of Radio Education takes a deep interest in teacher and pupil reactions to the broadcasts. The Department provides check lists for each teacher to use after every broadcast. These check lists give the teacher an opportunity to criticize and to offer suggestions for changes in the scripts. The check lists are collected and delivered to the main office each day.

Another method the Department has of checking audience reaction is by personal visits to the classroom during the broadcasts. Once or twice a week, a member of the Radio Department staff goes to one of the schools and listens in on that day's broadcast. He notes whether there is any confusion on the part of the children during the broadcast, and whether the program leads to an interesting and worthwhile discussion after the broadcast. He makes note of the questions asked about the program, and by every means possible tries to discover in what ways the program could be made of more value to the class. Thus by constantly checking programs, the staff members are able to change and improve the scripts to fit the particular needs of the students.

It has been found that a good radio program stimulates activity in other departments of the school. For instance, one particular radio program resulted in the pupils' writing stories, poetry, drawing pictures, and producing plays. In Detroit, third grade pupils are writing some creditable radio scripts. A few of these pupil-written scripts have been good enough to broadcast.

Programs broadcast at the present time, specifically for the public schools of Detroit under the supervision of the Department of Radio Education, include the following: Monday - The School Music Hour, station WXYZ; Tuesday - OUR WORLD TODAY, WWJ; Wednesday - The Story Hour, WJLB; Thursday - The School Spotlight, WJR; and Friday - Great Moments in Literature, WJBK.

Besides these regular daily broadcasts, the Department is constantly being called upon by outside agencies to prepare special broadcasts commemorating important occasions, promoting bond rallies, safety education, and other types of public service programs. These extra broadcasts provide further opportunity for participation by the public school boys and girls.

A significant service connected with the Detroit school broadcasts is the Script Exchange. Whenever a program is broadcast by the Department of Radio Education, teachers throughout the City know that a copy of the script is

available. Since the material given on a radio broadcast has been found to be usable in a number of ways, scripts are being used for a variety of purposes. Radio scripts are concise and to the point - clear-cut condensations of subject matter gathered from many sources. A program such as Detroit's "The School Spotlight" provides information on a different subject each day, and excellent material for classes to use in other ways. The scripts can be read aloud in class by some of the students; thus familiarizing the whole class with the subject matter. Scripts used as dramatic skits make the subject more interesting. Another development in the Detroit school system is the use of scripts by classes of slow readers. Teachers claim that the simple words, short speeches, and interesting material contained in a script, are all conducive to a speedier grasp of reading.

The Department of Radio Education furnishes a script delivery service to all schools in the City. A teacher needs only to call the office, request a specific script, and the script packet is promptly delivered. A script packet includes enough scripts for the whole cast, and mimeographing is eliminated, thus saving the teacher much valuable time. The same service returns the scripts to the office. In each packet is a "Script Exchange Opinionnaire", on which each teacher is urged to express his

opinion of the value of that particular script. By a simple checking method, the teacher quickly gives his reaction on the use of the script. He indicates the age level where it has proved most effective, and whether or not it was suitable, together with suggestions for future scripts. The opinionnaires are kept in the script packets so that each teacher who uses that script may see how the other teachers rated and used it. By this method, too, the Department of Radio Education makes sure of the effectiveness of the scripts and makes possible desirable changes.

The Script Exchange owns 1500 script packets. Some scripts are duplicates, but it is important to note that 1500 classes can be served in one day. Proof that the teachers do make use of the services of the Script Exchange can be seen by a pin map on the wall of the department office showing a daily record for every school that has ordered a script packet. Over a period of one day, 107 of the 256 Detroit schools phoned in requests for scripts.

Aside from the training and experience the students receive from the daily broadcasts, further opportunity is given for learning broadcasting and production techniques in the radio workshop, which meets every Saturday morning, with some member of the Radio Education Department. One Saturday, there were 327 children present representing grades from the fourth to the twelfth.

There is also a weekly class for school teachers. Every Wednesday from four to six, the head of the Department of Radio Education meets with Detroit teachers to help them learn how they can best apply the knowledge of radio to the classroom situation.

The experience of Detroit in adapting radio to the needs of its school children should prove encouraging to other schools in Michigan. Detroit is an example of what can be done on a smaller scale in any community in the State where a radio station is available. In all parts of the country, experience has shown that commercial radio stations are unusually cooperative and generous when dealing with the public schools. The fact remains, however, that a commercial station cannot always give up for school programs the hours which the schools would naturally choose. Schools are constantly having to change their broadcast hours to suit the needs of the radio station. Although the Detroit Public School broadcasts are more stable than many such broadcasts carried by commercial stations, and although the Detroit schools are given every consideration and aid by the staff members of the radio stations, the educators in the City realize that they will not be able to put on the ideal educational radio program until they have a station of

their own. Consequently, steps have been taken to bring this about. A site has already been purchased for a Frequency Modulation station to be owned and operated by the Detroit Public Schools. Construction will begin as soon as possible after the war.

CHAPTER VII

THE FUTURE OF RADIO IN THE PUBLIC SCHOOLS OF MICHIGAN

The future of radio in the public schools of Michigan will be determined by many factors, some of which are the following: first, the interest of local school officials; second, the ability of the schools to finance radio; third, the work of educators throughout the State; and last, the degree of excellence which radio will achieve, both technically and in program content. Since some of these factors are not easily determined in advance, they are not within the limits of this thesis. One important factor which is included, however, is the improvement of radio reception which is a direct result of the use of Frequency Modulation.

Frequency Modulation is a means of transmitting radio waves, and is infinitely superior to the present standard method of transmission known as Amplitude Modulation. Some of the advantages of FM are freedom from static - both natural and man-made - freedom from fading, freedom from interference, and increased fidelity of tone. By means of frequency modulation, both the speaking voice and music are received with a truer tone than is possible through the standard radio set.

Another important consideration to the educator is that the FCC has reserved five FM channels for educational stations. Consequently, after the war, education will have its own home on the air and at the same time will have an opportunity to make use of a far superior type of transmission.

At the present time, Frequency Modulation is being used with success by four large city school systems in the country. New York, Cleveland, Chicago, and San Francisco all own their own FM radio stations, over which they broadcast educational programs for the public schools of the city. The following statements give testimony to the high merits attached to this method of transmission: William B. Levenson, Department of Instruction, Board of Education, Cleveland, Ohio, says,

"WBOE (Frequency Modulation station run by the Cleveland Board of Education) has had an unusual opportunity to compare the relative merits of AM and FM broadcasting, since it has tried both, and since the location of the schools is such that an excellent check of reception in varying conditions could be made.

Beginning in 1938, the Cleveland school station broadcast for a time by amplitude modulation. When the shift was made to FM, a survey of reception quality was made among the schools, every one of which had purchased FM receivers. The response was unanimous in indicating that FM broadcasting was superior. Today we feel that school reception is no longer the "bottleneck" of classroom radio."[1]

George Jennings, Radio Director, Chicago Board of Education, has this to say,

"Reception on FM receivers is considerably better than over standard sets. Man-made and natural static is not

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1. Boutwell, William Dow, FM for Education, Bulletin-Misc. No. 7, U. S. Office of Education, Washington, D. C., page 3

transmitted through the FM receiver. With fixed-tuning sets (which will eventually be used in every school) there will be no interference, no fishing for the broadcasting station at the last minute before program time. A click of the switch will bring in WBEZ."[2]

James F. Macandrew, Radio Director, New York Board of Education, says,

"One of New York City's best known high schools is so located that its principal reported that radio programs were a complete waste of time. Man-made static was so bad that not even the 50 kw. network stations could be heard with any degree of satisfaction. As a test and with a temporary installation, an FM receiver brought in all the 1 kw. FM stations in the area with perfect clarity. In further substantiation of the above, it may be said that WNYE (the New York Board of Education FM station) gives clearer reception in schools with FM facilities than its AM counterpart of equal power to which its programs are piped."[3]

Frequency Modulation has already proved itself to be a vastly superior method of transmission. The present problem of the educators is to make full use of the channels assigned to education. For if the channels lie idle, the Federal Communications Commission will quickly turn them over to commercial interests. As James Lawrence Fly, former chairman of the FCC, said to members of the Federal Radio Committee, in September, 1943,

" . . . . those choice channels (the ones set aside for educational purposes) were not set aside for absentees. The ether is far too crowded, the pressure from other interests seeking to use radio far too great, to permit continued reservation of those channels, unless educators actually get busy and fill them with educational stations. There is no room for what the railroad industry calls "deadheading". If education doesn't want and doesn't need

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2. Ibid. page 3

3. Ibid. page 3

those channels, and if it doesn't prove its desires and needs by actually making intensive use of them, history is going to repeat itself, and education will again find that it is left with memories of a lost opportunity."[4]

In this State, the Michigan Education Radio Association has been organized for the purpose of guiding the use of radio for educational purposes throughout Michigan. Membership in this organization includes: the Governor of Michigan, the State Superintendent of Public Instruction, a representative appointed by each of the following organizations; State Board of Education, Board of Regents of the State of Michigan, State Board of Agriculture, State Adult Education Advisory Committee, and from each contemplated operating station in the proposed educational network.

Present plans of the Association include the building of a state-wide educational network of FM Stations, with a base station at Ann Arbor and three relay or beaming stations located at Cadillac, Manistique, and Houghton. In this way, the network will provide complete coverage of the State - both upper and lower peninsulas - so that educational programs will be available to every rural, as well as to every city school in the State.

The advantage of a network of this type is that every school in the State that could afford FM receiving sets, would have available the finest programs the state would have to offer. Through the cooperative efforts of the

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4. Boutwell, op. cit., page 1

Michigan Education Radio Association, well-balanced programming should result. Representatives from educational stations would consult with local boards of education to discover what programs would be most desirable for the schools in that community.[5] It is evident that in small communities, the local teaching staff cannot cover as many fields as thoroughly as it would like. Teachers should welcome supplementary broadcasts which bring fresh material to the classroom. Likewise, it will be possible to repeat certain programs which have proved valuable.

With the opportunity of using program material from many different stations, it is believed that the small communities would feel capable of operating educational stations, since the problem of programming, one of the most difficult facing radio stations, would be partially solved.

The question may arise as to whether the schools are vitally concerned with the future of radio. Judging by the data obtained from the postcard questionnaires sent to all of the superintendents in the state of Michigan, there is a definite interest in the use of radio in the classrooms, for of those schools that do not use radio, 84.4% expressed interest in the future use of radio, providing conditions could be improved. This indicates that schools in Michigan consider radio an educational tool worth their time and attention.

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5. It is probable that the Boards of Education will own the local educational station in many communities.

In order to discover what definite plans, if any, have been made to own Frequency Modulation stations of their own, school superintendents were asked to give an opinion on this matter. Table XXXIV shows the number of schools that have definite plans for owning FM stations.

TABLE XXXIV

Plan to Own FM Station	Number of Schools
Yes	7
No	120
Uncertain	7
No Answer	32

In order to receive programs from Frequency Modulation Radio Stations, special FM receiving sets, or else FM attachments to standard sets will be necessary. Table XXXV shows the number of schools that plan to equip their classrooms with FM receiving sets in the near future.

TABLE XXXV

Plan to Equip Schools With FM Receiving Sets	Number of Schools
Yes	43
No	37
Uncertain	45
No Answer	41

Some schools indicated that they plan to equip their buildings with FM receiving sets, providing there is a state-wide network of FM stations. Obviously, the stations must come first.

CHAPTER VIII

SUMMARY

The postcard questionnaire, sent to 661 superintendents of schools in Michigan, was returned by 428 superintendents. The study of these questionnaires revealed the following facts:

I. 201, or 45.8%, of the 428 schools reporting, use radio in the classroom. 227, or 54.2%, make no use of radio.

II. Of those schools that make no use of radio, 52% have used radio some time in the past.

III. Of the 227 schools not using radio, the greatest number reported "No Equipment" as the reason for not using it.

IV. 25 additional reasons were given for not using radio. Of these reasons, 12 are classified as "Poor Reception"; 7 as "Programs Not Suitable"; 6 as "Lack of Interest or Proper Guidance"; 5 as "Lack of Equipment or Room"; 3 as "Financial Difficulty"; 2 as "Need Repairs"; and 2 as "Scheduling Difficulty".

V. 84.4% of the 227 schools not using radio indicated a definite interest in the future use of radio, providing conditions which hinder the present use of radio could be corrected.

The longer questionnaire, which was sent to 201 superintendents and principals of Michigan schools, was returned by 166 school administrators. The study of these questionnaires revealed the following facts:

I. 27 schools, or 16%, have central sound systems.

II. 66 schools, or 40%, use radio two hours or more a week.

III. 62%, or 103 schools, report possession of equipment for playing records, but only 8%, or 13 schools, are equipped for playing transcriptions.

IV. 16%, or 26 schools, report owning recording equipment, but only 5%, or 9 schools, are equipped to make transcriptions.

V. Broadcasting activities are reported by 35%, or 58 schools. 9%, or 15 schools, do broadcasting "on the air" only. 18%, or 29 schools, broadcast over the public address system, only. 8%, or 14 schools, do both types of broadcasting.

VI. Outside of Detroit, there are only four radio stations in Michigan which indicate that they broadcast programs for classroom use. Five radio stations in Detroit broadcast classroom programs.

VII. Only 28 schools, or 17% of the 166 schools reporting, listen to a radio program regularly (at least once a week).

VIII. Radio programs for classroom use are considered either "Practical" or "Very Helpful" by 67.7% of the 166 superintendents reporting.

IX. 28 additional reasons were given by superintendents for not being able to use radio more extensively: 11 reasons can be classified under the heading of "Scheduling Difficulties"; 10, the next largest number, are classified under "Poor Reception", and 7 are classified as "Failure of Programs to Meet School Needs".

CONCLUSIONS AND SUGGESTIONS

The survey indicates that if radio is to be used more extensively as an educational tool, the public schools will need to have additional equipment. The results of the post-card questionnaire draw attention to this fact, because of the 227 schools that do not use radio, 49% checked "No Equipment" as a reason. Since this represents the largest percentage of superintendents in this group, the item of equipment would seem to be the starting point in any program designed to extend the use of radio in the public schools.

Most of those schools which already use radio have fairly good receiving equipment, but there is great need for play-back recording equipment. Evidently, many schools are unaware of the possibilities of using transcriptions. These schools should be given full information on this subject.

Since the greatest single complaint of all superintendents is "Programs at Inconvenient Hours", it would be well to investigate this problem at length. At present, two solutions are offered: first, to encourage the use of transcriptions and the establishment of transcription libraries in order that radio programs can be used at any hour desired; and second, to encourage the development of broadcasting activity within the local school system, so that classroom programs can be "made to order". If every school could have a

central studio where transcriptions could be played and broadcast over a public address system, programs could be sent to any room upon request, and the timing of programs could be worked out more satisfactorily.

At present, programming for school use is weak. Very few radio stations in Michigan broadcast programs for the benefit of the school. Schools that are in and around large cities - such, for example, as those in the Chicago and Detroit areas - receive many good programs for classroom use. But even these schools have difficulty in making classes and broadcasts coincide. A suggested solution for this problem would be to have radio stations operated for the "interest, necessity, and convenience" of the public schools. An educational network would furnish classroom programs to the many schools which register the complaint that programs do not fit the courses of study.

There is need of education <u>for</u> radio before there can be education <u>by</u> radio. Teachers must be trained in the use of radio, including both the use of equipment and the use of programs. Only when teachers know more about the complete utilization of radio, will the students receive full benefit from its use in the classroom. It would be well for at least one teacher in each school to be trained in broadcasting and production techniques, in order that students could have the educational advantages which come from broadcasting. To this

end, special night classes or summer courses in all phases of radio should be made available to public school teachers at a minimum cost.

It is significant that 67.7% of the superintendents reporting, consider radio programs either practical or very helpful. The fact that radio programs are valued so highly by such a large percentage of superintendents gives reason for seeking to make radio more easily available to the schools of Michigan, and for attempting to correct those conditions which hinder schools in their use of radio.

Based upon the experience of other schools throughout the country, it would seem wise for the individual schools of Michigan to form a committee within the school, so that a study might be made of radio programs, transcriptions, and the best possible means of using the equipment on hand. This committee could advise as to what radio equipment was needed for the school, could cooperate with the local commercial radio station in producing good school programs, and by learning everything possible about the production of radio programs, would thus be prepared to work advantageously with the educational stations of the future.

Further investigation of the needs of individual schools is essential. The county might well be used as the unit for a more detailed study. Further study could profitably be made of the schools which do not use radio. Since 52% of

those that do not now use radio have used it at some time in the past, it would prove especially helpful to know why they have discontinued its use.

In order better to evaluate radio programs and find out how advantageous they are as a supplement to teaching, it would seem desirable to carry on studies which would show what progress, if any, is made by the school children through the use of radio programs. Such studies as those supervised by the Ohio State Evaluation of School Broadcasts Staff,[1] and the Wisconsin Research Project in School Broadcasting,[2] are examples of what might be done in Michigan.

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1. Seerley Reid, Radio in the Schools of Ohio. Washington, D.C.: The Federal Radio Education Committee, 1942.

2. Wisconsin Research Project in School Broadcasting, Radio in the Classroom. Madison: University of Wisconsin Press, 1942.

APPENDIX

RADIO IN THE PUBLIC SCHOOLS OF MICHIGAN

SCHOOL_____ NO. OF STUDENTS_____
SUPERINTENDENT_____ NO. OF TEACHERS_____

I. RECEPTION OF PROGRAMS

1. What equipment do you have for receiving radio programs? Check below:

   (a) Central radio-sound system____
   (b) Individual stationary radios____How many?____
   Where located?_____
   (c) Portable radios____How Many?____
   (d) Other type? (Please describe)_____

2. Approximately how many hours weekly is equipment in use?_____

3. Which classroom broadcasts do you listen to? And from what stations?

   REGULARLY (at least once a week)

Programs (Example: "New Horizons")	Radio Stations (Example: WJR, Detroit)

   OCCASIONALLY

Programs	Radio Stations

4. Do teachers provide pre-broadcast information, instruction, or activities pertaining to the radio program? Yes___No___

   State briefly some of the methods of preparation, if any:__

   _____

   _____

5. Are broadcasts followed by classroom discussion or special projects, or activities such as themes, dramatizations, etc.? Yes____No___

   If so, what types of post-broadcast activities are used?_____

   _____

   _____

6. Which division makes the most use of broadcasts? High School _____Elementary_____

7. Which field (i.e science, music, current events, etc.) offers most satisfactory programs?_____Which the weakest?_____

8. Do you find radio programs for the most part:
   (a) Impractical for classroom use_____
   (b) Practical " " " _____
   (c) Very helpful " " " _____
   (d) Indispensable" " " _____

9. What criticisms would you offer to school radio programs now on the air, and what suggestions for future programs?_____

_____

_____

_____

II. BROADCASTING

1. Do you do any broadcasting? Yes____No_____ (Check Type Below
   A. Within the school (public address system)_____
   B. On the air_____

   Please mention types of programs broadcast:_____

   _____

   _____

2. Who is responsible for the production of radio programs?
   A. Person employed specifically for that job_____
   B. Faculty member, who takes over radio production as an extra job_____
      (If B, has teacher had training in broadcasting techniques? Yes____No____)

III. GENERAL

1. Do you offer instruction in Radio speech? Yes____No_____

2. Do you have equipment for playing recordings? Please check:
   A. 10 and 12 inch records?_____
   B. 16 inch recordings turning at 33 1/3 rpm?_____

   Do you have an instrument for making recordings?
   A. Will it record at 78 rpm?____At 33 1/3 rpm?_____
   B. Check uses made of recorder:
      (1) Recording radio broadcasts for future classroom listening_____
      (2) Recording performances of students_____

3. Have you any definite plans for owning your own Frequency Modulation station in the future? Yes____No_____

   Do you plan to equip your school with FM receiving sets? Yes____No____

LETTER ACCOMPANYING LONGER QUESTIONNAIRE

Dear Superintendent:

As a graduate student in Speech and Radio at Michigan State College, I am making a study of the use of radio in the public schools of Michigan.

Since plans are already under way for a postwar Michigan network of Frequency Modulation educational stations, it becomes important that information be made available concerning the present use of radio in the schools.

The results of this survey will be placed at the disposal of the Michigan Educational Radio Commission, and we hope through this study to be able more intelligently to plan for educational broadcasting in the future.

Your cooperation in supplying information and returning the form in the enclosed envelope will be exceedingly helpful and greatly appreciated.

Yours very truly,

Ruth Nadal

Enc.

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