The Place of Radio in Modern Education

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THE PLACE OF RADIO IN MODERN EDUCATION

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CHAPTER ONE

EDUCATION OF LISTENERS

Society today recognizes its responsibility to provide education for both children and adults. The traditional idea of education which has been handed down through the ages has emphasized only education for children.

Problems which have come up during the last few years have made it evident that there is great need for education of adults. The United States Government recognizes this fact in the Social Security Laws. The Social Security program provides for both dependent adults and children. Along with these payments to the dependent people of the country the Government is emphasizing the need of education for both child and adult as a means of solving the security problems of future years.

In addition to these broad safeguards of family life, the Social Security Act contains four provisions for children. Three of these programs— for maternal and child health, for services to crippled children, and for child welfare—are administered by the Children's Bureau of the United States Department of Labor.

The Act also makes provision for the support of dependent children in their own home. Under this program over 313,000 children in 22 states are now being aided. This is one of the three public assistance provisions of the Act which, together with old-age benefits and unemployment compensation, are administered by the Social Security Board.1

Of course, the Government recognizes that the major responsibility lies in the education of the children, but it also recognizes the importance of education for adults.

1 School Life, "The School and Social Security", Franklin, Zilpha C., April, 1934.
There are many agencies by which this needed education can be given. Radio is recognized as one of the chief mediums for education of both children and adults. The number of radio families as of January 1, 1936, was estimated at 22,869,000 or 74 percent of all American families. This represents an increase of 6.6 percent over the estimate for the same time last year.\footnote{1} With a corresponding increase until January 1, 1937, we would have radios in 80.6 percent of the homes. We can easily understand, then, why the radio is a medium for education. The motion picture is considered an educational institution, but we can easily see that the radio has greater influence because more people have access to the radio at all times than to the motion picture.

There is need for considerable effort to educate the person who listens to radio programs to the point where he may receive the maximum benefit from his listening. The majority of radio listeners are not critical of the programs to which they listen. They do not give any thought to what effect the program may be having upon them. They respond to whatever type is offered, whether it is uplifting or harmful.

Most of the commercial programs have been broadcast for this group of uncritical listeners, because they will respond to the appeal from advertisers very readily, and the manufacturers find that sales are greatly increased.

\footnote{1 Washington Star, May 10, 1936.}
The thing needed most is to educate people to be critical of things broadcast and to evaluate the programs. A person who learns to do these things will be able to determine whether or not the appeals which are being made to him are accurate or are mere sales talk.

This is the situation. What can we do about it? How are we to pull ourselves out of this slough of chicane and vulgarity into which, with every passing day, we seem to be sinking deeper? For it must be apparent to every thoughtful person that something ought to be done about it. . . This is what I propose: Let every person who feels himself concerned in this matter make a resolve not to buy any more goods which are advertised in any unseemly or unethical way. . . If enough people would do this--if only a relatively few people would do it--there would be consternation in the enemy's camp. The retailer would complain to the wholesaler. The wholesaler would complain to the manufacturer's salesman. The salesman would pass the word on to the manufacturer, and the manufacturer would clean house.  

A growth in discrimination on the part of the majority of listeners is needed if much improvement in radio programs is to be gained. This improvement of course will have to be a gradual process of education to cause people to think about programs as they listen to them.

A broadcaster in order to please his listeners, should know their likes and dislikes, their needs and interests. The listener himself needs guidance because he does not always know exactly what he would like to listen to. This situation, if handled properly, will mean that the listener will be benefited because that type of program

1 Atlantic Monthly, Batten, H. A., July, 1932, p.56.
would be given which would be beneficial in its nature.

How can we solve this problem? Do we need to develop a taste in listening to radio programs? We could make a study of this question in various ways. Listen to the ordinary commercial radio program that is being given. Is it not a mixture of poor and average, with possibly a very small amount of outstanding material? Certainly the larger portion will fall in the average and poor class, with possibly the greater part falling into the poor class. We would probably be very greatly surprised with the results from such a study. Such a small amount of good material would be found that the average person would agree that something should be done to make the programs better.

The only way this can be done, of course, is to develop in the listeners a critical mind; a desire to study and see if the broadcaster is giving them information which is inaccurate and harmful.

Another good method to determine what type of programs are to be listened to most would be to make a survey of a group of adults and ask them to list the programs which they hear over their radios at regular intervals. Evaluate these by the standards set up in Ohio, as found on page 38 of this paper. Of course, if such a survey were made, a variety of programs would be listed, but the average program, as listed by this group, would be low in quality and have little educational value. A study could be made of the type of program listened to by children and the same valueless program
would be as prevalent here as with the adult group.¹

Taking this into consideration, is it not a problem for education to correct these harmful influences of the low type radio program? At one time a listener wants to get information on some particular question; at another time he may be listening for amusement; at some other time he may be seeking recreation; and again he may be listening merely from force of habit; with no particular need in mind. We can see that it will be a big problem for the broadcaster to satisfy these various desires of the listener and at the same time give him something of educational value. This, of course, can be done, and it is one of the problems of the public schools and colleges today to help radio broadcasters find adequate solutions.

The following is the result of a Radio Questionnaire of the Children's Aid Society:²

According to Children's Aid Society's recent radio questionnaire, children's programs are not popular with children. 92% of the boys and 80% of the girls, aged 11-16 years, list adult programs as their favorites and comedians as their favorite performers. Eddie Cantor is at the head of the list, with Burns and Allen, Jack Benny and Dick Powell tied for next place. The only so called children's program getting votes enough to be in the upper bracker is "Dick Tracy, a "Thriller".

Next to the comedians with their popular songs and dance tunes, come thrillers, including the "Witch's Table". Next come the amateur programs -- Major


² School and Society, February, 1936.
Bowes' in particular, for they like to hear the people "get the gong". Only 14% indicate a liking for the news programs, and these prefer the "March of Time" to news talks. More girls than boys vote for the comedians and children's programs, but boys outnumber the girls in their votes for programs about G-Men.

These children, from the Society's boys' and girls' clubs, with an enrollment of 10,000, in seven tenement neighborhoods, spend twenty-one times as many hours listening to the radio as they do in reading. The majority give two hours a day to the radio. More girls than boys spend an excessive amount of time listening in. In the group that listen from less than one hour to two hours, boys outnumber girls, but in the group that listens from three to five hours a day and upwards, girls predominate. 97% of those who listen to the radio every day give more than one hour to it.

WABC is the station the children listen to most, due to the popularity among them of Eddie Cantor, Burns and Allen, Bobby Benson and Dick Powell. WOR is the next station.

The following is the result of a study made by Paul T. Rankin:

<table>
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<tr>
<th>Method of Communication</th>
<th>Use in Life-%</th>
<th>School Emphasis-%</th>
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<tbody>
<tr>
<td>Listening</td>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>Reading</td>
<td>16</td>
<td>52</td>
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<td>Talking</td>
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<td>Writing</td>
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He found that people listen three times as much as they read.

Those methods of communication emphasized most by schools are used least in life. If listening and talking are the means of communication used most in life, those should be developed most.

Radio eliminates the visual aspects of listening since we cannot see the one to whom we are listening.

1 Education on the Air, 1934, p. 347.
Television will, probably in the near future, enable us to see the program as well as hear it over the radio. The listener does not have to evaluate the facial expression, appearance, or gestures of the broadcaster. Thus the listener devotes his entire attention to the words spoken.

It seems that there is no agreed psychology of listening. In research done by Pauline Winkler, she said:

One man found that the majority stated that listening was an active process. Of this group two stated that until the speaker made his first point, listening was passive.

The following factors which affect listening were listed:

Interest, environment, manner of delivery, style and speed, content, attention, concentration, emotional state of listener, how much the listener wants to know, the speaker’s personality, voice, choice of English, method of appeal, and authority.

Although there may not be any definite psychology for listening, there are certain rules which could be used advantageously. The following are guide rules to efficient listening:

I. The listener must be mentally active.

A. He should prepare for what he expects to hear.

1. Read material about the topic and speaker.
2. Discuss the topic.
3. Think about the various phases of the subject which the speaker might stress and the authority of the speaker in that field.

B. Listener should do certain things during the lecture.

1. He should use these general steps:

1 Education on the Air, 1934, p. 348
(a) Look for the main trend in the title and opening paragraphs of the speech.

(b) Note the important divisions of the lecture. These are usually indicated by the "signposts" used by the speaker.

(c) Listen by units of thought. He should give attention to the idea rather than the words in which it is expressed. One important idea in the illustrative speech is "definite efforts to raise values of agricultural products."

(d) Make a deliberate effort to get the speakers' keywords, phrases, or sentences because around each an idea is built.

(e) Constantly associate the material heard with his own ideas and previous knowledge on the subject.

(f) Raise questions as to what meaning the speaker implies or the reasons underlying his statement.

(g) Challenge the speaker's statements by comparing them with previous knowledge and the views of others.

(h) Stop listening in order to make a rapid review when the speaker relates information already known or continues with an illustration when the point is already understood by the listener.

2. He is aided by certain specific mental activities.

(a) By visualizing the scene described or a particularly striking word or phrase.

(b) By mentally outlining the lecture in from three to five main divisions with a supporting statement or two under each.

(c) By jotting down a skeleton outline of the lecture if this is socially possible. (Small cards are less conspicuous than large notebooks for use in public lectures.)

C. The listener should continue his thinking after the lecture.

1. Formulate his own ideas on the subject in the light of what has been previously known and recently heard.
2. Challenge the speaker's statements. Do I believe with Mr. Roosevelt that . . . ?).

3. Test the speaker's conclusions.

4. Discuss and read about points which he questions or with which he disagrees. (These items will help in the discussion period following the lecture.).

D. The listener should notice the signs employed by the speaker to indicate important points.

1. He should watch for these verbal devices.

   (a) Look for main divisions when the speaker enumerates.

   (b) Look for a change in thought or a new idea after transitional words.

      (1) "Besides," "furthermore", "Likewise", and "moreover" suggest equality between the statements.

      (2) "Accordingly", "consequently", "hence", "therefore", and "thereupon" precede the idea which is a natural or logical consequence of previous statements.

      (c) Interpret figures of speech as dramatic devices of the speaker to call attention to important facts.¹

Educating the listener is a task which can most readily be done through organized groups. There are at least three standards for judging the suitability of an educational group activity. First, it must have interest for the members of the group. Second, a worth-while group activity should be one which touches closely the lives of the group. The third necessity is that the activity must be a social one; that is, its success must depend to a great extent upon doing things together rather than upon individual effort.

Discussion itself is a worthwhile group activity, because what each member derives from it is dependent upon the part which others take in the activity. The study of the radio programs is an educational group activity which meets all three of these criteria. For both children and adults, radio programs are an interesting topic of discussion. We get such a variety of material from the radio that everyone has at least one favorite source of programs, regardless of his likes and dislikes. Individual differences are being met by a large number of stations and a variety of programs broadcast over those stations.

Critical listening is encouraged by the exchange of opinions that comes with discussion. If we live alone and never discuss matters with other people, we tend to keep our opinions practically unaltered. In the give and take of group discussions, we must modify our beliefs or opinions to take into consideration facts which other people have offered. We grow through the exchange of thoughts and the growth is toward maturity.

I would like to suggest some things which a teacher in school could have the children do that will make them better listeners.

The teacher could ask the children to keep a ten-day record of all the radio programs which they listen to, listing various information about the program, such as:

(1) the broadcasting station over which the program was coming, (2) the day on which the program was broadcast,
(3) the hour at which the broadcast was given, (4) the name of the program, (5) the person or persons sponsoring the program, (6) the nature of the program, whether it was educational, comic, etc., (7) comments by the child.

After having kept a ten-day record, a report of each individual child should be studied and considerable time spent with the entire group, discussing the various programs and considering the various criticisms offered by the different pupils. The teacher, of course, would often have to aid the children in making their criticisms, in order for her to help the child give the proper criticism of programs. Some of the children, of course, would offer criticisms which would lead to learning; others would offer criticisms which would hinder learning if the teacher did not recognize this problem and correct it. In this way the child could be developed into the proper type of critical listener.

In the study of the programs to which the average high school pupil listens, one will find two striking characteristics; First, the failure of the pupil to distinguish quality within any one type of program, and, Second, the narrow range of listening interest.¹

In teaching discrimination the student should be encouraged to study a wider variety of programs, such as

political talks, comics, jazz music, symphony orchestras, opera, operatic singing, popular music, drama, sales talks, children's stories; in fact just as many different kinds of programs as could be listened to during the period of study.

These programs should come over different stations, both local and national hook-ups. As the student studies the different programs, he will become acquainted with the entire range of broadcasting in the United States.

Arthur G. Crane, President, University of Wyoming, and Chairman, National Committee on Education by Radio, in an address before the National Education Association, Portland, Oregon, July 1, 1936, stated:

American children today are listening an average of over two hours a day to the radio. What are they hearing? What influences are bearing upon their lives? They are being educated today by radio, whether this education be good or ill, elevating or debasing. This education may be tawdry, trivial, trifling, or it may bring to bear upon the lives of these children the best that America produces. ¹

After this study has been made, class discussion should follow. The pupils can compare their findings, try to detect the excellent points and the faults in each.

Students should not be expected to listen to one program in preference to another without having some standards for evaluating each of these in order to determine

its worth. In this way students will come to appreciate the better type of program. Certainly he will be able to pick out the good points and recognize the evils in the different programs. Radio listeners should listen to a variety of programs in order to hear the good and bad in the different fields, -- good music and bad music, good talks and bad talks. If students in general would become critical of the programs they listen to and express their criticism of the broadcaster, either through the newspaper or by writing directly to the station itself, we would find a better type of program being offered to the public.

I am advocating no lessening of the effort to make the finest and best of classical music an actual and necessary part of the daily lives of all kinds of people. I am simply presenting to you as a problem the necessity of awakening in our people such a sense of discrimination and appreciation of workmanship, that, whatever the music--classical, semi-classical, or purely popular, they will demand the most careful preparation and impeccable performance as the price of their listening and praise. Given this as an accomplished fact, an increase in the national interest in the highest and noblest treasures of music must follow.¹

Some of the standards for evaluating these programs might be: technical perfection, purpose, ability of those on the program, the extent and type of advertising interwoven with the other parts of the program, and the honesty of the statements made.

In general, we get the kind of radio programs which we deserve. If we are not critical listeners, we cannot

¹ Education by Radio, Seebach, Julius F., January, 1937.
expect good programs, and we cannot be surprised if political experts come along and make use of this fact to further their own personal interest. Ignorance is a most dangerous element in society, for upon it thrive commercial exploitation and political dictatorship.

We must develop discriminating taste on the part of the American people with regard to radio listening if Democracy is to survive in this country. There can be little hope for the survival of democracy except through a critical and intelligent public, which applied strict standards of quality to all its sources of information and entertainment. Through the combined effort on the part of schools and other institutions of learning, of the laboring class of men, of business men and of farmers, we can expect an increasingly higher level of taste upon the part of the American public. We must do all that we can to bring this to pass. The radio will contribute largely to this if it is given a fair chance.
CHAPTER TWO

RADIO AND RURAL LIFE

Almost all educational leaders today are talking of educational opportunity for rural communities. There are at least five things which should be supplied if the opportunity of the rural child is to compare favorably with that of the city child.

First, we need to consolidate more of our rural schools.

Second, we need buildings of modern design with proper heating, lighting, and ventilation, which should be built with some thought of future needs as well as present.

Third, there is a need for more and better trained teachers, since it is not desirable for one teacher to teach a group of children of all ages and grades without some help.

Fourth, supervision is badly needed in the rural areas, for it is surprising how successful the teaching has been with such little supervision.

Last, a broader curriculum is needed for the schools, because the pupils cannot be fitted into society unless a broader range of activities is provided.

To a certain degree, the process of improvement for the rural areas will be slow. There are some things that can be, and are being done, that will greatly aid in the training of the rural child; that is to place the radio at the disposal of the teachers, and plan programs
for the school situation.

A rural community would have the opportunity, through the radio, to know of the benefits to be had from a modern building. Through the radio contact with other people a community comes to realize the importance of proper ventilation, lighting, heating, and sanitary conditions. These conditions are often prevented or corrected in both the homes and schools because a community has a chance to be educated to these things.

A well trained teacher usually avoids teaching in the rural communities where conditions are not as desirable as they could be. As a result, we find many of the schools staffed with poorly prepared teachers.

We can readily see that the use of a radio in the classroom would be a great aid to the rural teacher. She can get expert supervision from this source that she is not easily able to get from any other. Demonstration lessons should be of great value in helping the teacher to improve her instruction. She is made to see the need of cutting out material which does not meet the needs of the pupils. One day she may listen to her State Superintendent himself, an opportunity some teachers and many pupils rarely ever have.

With teachers who are poorly trained in many of our rural communities, we should do something to improve teaching. Sometimes they do not have regular supervisors to help them with their instruction, but they can turn to
the radio. A school would be benefited if the teachers and pupils had access to a radio because new thoughts and ideas would be brought into the classroom.

No one would question the value of a radio visit by a good supervisor. The teacher usually has to get along with one or two short visits from the County Superintendent, during which very little, if any, constructive help could be given. A system of radio supervision could produce very satisfying results because experts in the different fields could be brought to the teacher.

Throughout the country many radio sets are found in rural schools. More should be found there because the teacher can bring the educational programs into the school room and thus enrich the curriculum. In some localities the schools work out their own programs and broadcast them to the community. Much work is necessary before this should be attempted. This particular phase is discussed in another part headed "Broadcasting by Schools". Where failure has resulted in these broadcasts it was probably due to poor planning.

Another opportunity to enrich rural life would come when the President of the United States is to speak. Many people listen to talks by our leaders without ever being benefited by their listening. This is often due to the lack of an understanding of what to listen for and how to evaluate statements in terms of the listener's own position in life. In an address before the Department of Superin-
tendance, Saint Louis, Missouri, February 27, 1936, Arthur G. Crane made the following statement:

School leaders, to whom is entrusted the instruction of thirty million citizens, cannot neglect this new, potent instrument for supplementing, accelerating, and vitalizing instruction. No longer can schoolmen say, "It's new; it's a toy; it cannot be used in schools." Radio has demonstrated its worth. Courageous educational broadcasters have led the way, have developed the technic, have demonstrated radio's contribution to school instruction. History, literature, science, music, and world affairs can reach the big city schools and the remotest rural school alike.

The radio could be one of the most important forces in rural education today. The radio is doing more to form public opinion, to create musical habits, and to develop dramatic taste than possibly any other method of instruction inside or outside the school. The schoolhouse, the church, the college, and any other institution of learning requires considerable expense and effort on the part of the persons who seek educational direction from them. The radio, at minimum expense and effort, carries information directly to the home and sometimes to the schoolhouse itself. On November 6, 1936, President Franklin D. Roosevelt made the following statement:

Radio Broadcasting is an essential service to the American home in the molding of public opinion. It must be maintained for the American people, free of bias, or prejudice, or sinister control.

The radio, of course, cannot take the place of the classroom teacher as some have advocated. She should not

1 Education by Radio, March, 1936.
2 Education by Radio, December, 1936.
ever be replaced. It will always remain true that the teacher is the most important factor in teaching. If she is a good teacher, many possibilities are ever present to her. Personal contact with a teacher is of great importance.

Even though the school does not have radio equipment the teacher should accept the responsibility of helping the pupils and parents to get the greatest benefit from the broadcasts going into the homes from other sections of the country. The teacher, by a study of programs, can encourage the parents, through the children to listen to the best programs. The teacher will find much material to use in his school work. The right kind of teacher can exert a tremendous influence on the community in getting them to tune in on the best programs. Rural life will be greatly enriched and elevated by such work.

The news broadcast by Lowell Thomas and other news reporters can link the school with the home in a study of current topics. In many rural communities these current happenings would go unnoticed were it not for the interest created by the teacher. Likewise, music appreciation in a community can be developed by this connection between home and school.
CHAPTER THREE

ADULT EDUCATION BY RADIO

Adult education is being recognized as a very important part in our educational program. It would be difficult to accomplish a great deal in regular schools for adults because many would not attend. They might realize the necessity of education, but they would hesitate to start back to school. Then adult education will have to be carried on in other ways, along with regular organized schools. The library is recognized as an important agency in education of people. Another means of adult education is through the use of the radio.\(^1\) The radio can cover practically every subject and can have a great influence for good on the lives of our people.

Radio education for adults should concern itself most with the education of those people who had to or did leave school early. There are hundreds of these people who could be greatly benefited by a well planned program of education over the radio. Some have been successful to a certain degree but are handicapped because of a lack of training which should have been secured in school. They are not able to adjust themselves properly to their environment.

In considering adult education, we must not forget that in some sections a large part of our voters never

\(^1\) Education on the Air, 1934, Table V, p.335.
go beyond the grammar grades, while another large part never go beyond high school. There are other sections where a large part of the people have never been to school more than eight or nine months in their lives. The early school was only open two or three months in the year. These voters, through no fault of their own, fail to act wisely at times. This majority can prevent the school people from putting into effect some very constructive ideas. Such voters may be appealed to and made to believe whatever the opposition to constructive ideas tells them. Much of this harmful propaganda is broadcast over the radio and the person who is not informed is likely to be misled. There is today a great need of a better understanding of the past and present history of our country and other countries in order to interpret better and understand present day legislation. Social Security has been practiced in other places for years successfully. Other "New Deal" legislation has been in use in some of the European countries for many years, particularly in England, Norway, Sweden, and Denmark.

Too much of the time given to educational broadcasts is spent on those who are already fairly well educated and do not need the help as badly as those who have been deprived of an education. A person who plans strictly educational programs for broadcasting may fail to recognize the needs of those who need aid most. Many of these people
are eager to take advantage of the right kind of help which I think the radio could give. By helping those whose needs are greatest, the others of lesser needs will also be lifted up. Education of the mass of the people who determine the welfare of our country can be accomplished through a wise adult educational program over the radio.

The widespread use of the radio in school would not only enrich the work of the classroom, but it would make a large contribution to the education of adults who listen to the programs broadcast to the classrooms. They are thus able to learn anew the things they studied in school, or if their school opportunity was limited, to enjoy some of the advantages which are now given to children. No one can estimate the value of this incidental learning on the part of the adults. The proper thing to do for the national well-being is to use the radio as a medium for systematic education of the entire population, both adults and children.

In the mountains of Kentucky where radios are not so numerous, the University of Kentucky worked out a plan of adult education by radio through listening centers; each listening center to be located in settlement schools, general stores, newspaper offices or community where the people who want to listen can be cared for. The listening centers were opened only when the University was broadcasting its educational programs.¹

¹ Education by Radio, "Kentucky Listening Centers," December, 1933.
The adults who did go to school in their day find themselves confused by conditions now, because they are different from the conditions of their early life. They need instruction to help them in the management of their personal affairs, to help them interpret the conditions of today's life, to help them adapt themselves to the new conditions, and to help them to take part in the civic and cultural life of our time. There are millions who now have considerable leisure through shorter working days, so that they have time for study and improvement of their appreciation for the worthwhile and beautiful. Through this study, made possible by the radio, adults will become better citizens and will know how to help make their children better citizens.

Many adults are now enrolled in some kind of school, showing that there is a need for adult education as well as education for children. Society will come to support a program of education for the entire life of its members. Radio will take its place in this program along with other agencies. I quote part of a letter from a Mother in an isolated part of Ohio to a station in Massachusetts:

I want to enroll in the course you are broadcasting. It is such a fine, generous offer for folks like me who simply can't get away from home and yet who dread the thought of stagnating because of isolation.  

1 Education by Radio, June, 1934.
The radio is already contributing to adult education in a large way. The success of the radio in educating the adults can be measured by the growth of culture among the people.

There are a number of programs being broadcast which were designed primarily for Adult Education. Some of these programs are: "Answer Me This!", "Have You Heard!", "Professor Quiz", "Education Please", "Americans All--Immigrants All", "Democracy in Action".

In the Cleveland Public Schools two programs are presented weekly for groups of parents meeting in the various schools. These programs are listed in the schedule of the Cleveland schools given on page 70. The subjects discussed in these programs deal with the child and the school, as well as with the training of pre-school children.
CHAPTER FOUR

BROADCASTING BY SCHOOLS

In our democratic society local control of schools is still evident, although state control is felt. National control is not evident and I believe should not come into existence. The local communities should be informed of the schools' program and needs of the voters are to do for the schools what should be done.

A failure to meet the needs of our schools is often due to the fact that the people do not realize that the need is so great and that they personally are responsible for helping to satisfy that need. An intelligent interest in the schools can be stimulated by having school work broadcast all during the school year. When an opportune time presents itself, important problems presented over the radio would find the school people responding. Any school activity could be announced and support asked from the community much more effectively.

At this particular time the radio could be used very effectively to hasten changes in our curriculum and methods of teaching. People have an inaccurate idea about the new program and because of this, say we should not leave the old methods. With a majority of the homes having radios it should be an easy task to put on the right kind of radio programs and sell them to the public. The effectiveness of any program of promotion depends upon the skill with
which it is put on. The change above of course would not be a matter to decide publicly, but certainly the public must go along with any change that takes place. The voters may express their views by voting or by approving or disapproving the project.

If a matter should come up for approval or disapproval by a cast of votes, the radio would serve a very useful purpose. Citizens would be able to evaluate issues without any fear of last minute propaganda to kill the program. Without the use of the radio such harmful propaganda could not be counteracted.

When a school is using the radio to keep in touch with the public, the pupils are greatly benefited. They are stimulated to do their best work in preparing and presenting a good program. This type of work causes them to form desirable habits and attitudes that might not be set up any other way.

The older method of discussion of school affairs is giving way for dramatization of school activities. The radio allows the public to listen in on programs being presented at assembly meetings, actual classroom sessions, meetings of science clubs, or athletic events. Programs pertaining to local history, past and present, would motivate the interest of the students.

When a class has completed some worthwhile project, there would be no better way for them to show their accom-
plishment than through the use of the radio. This could be either within the school or be sent out to the public generally.

In putting on a worthwhile program there would necessarily be very strict requirements. Children usually enjoy putting on such a program, since by doing this they win the favor of their parents and other adults as well as those with whom they associate. Knowing that their associates and parents are going to hear a program, the children will work to put one on that will be very satisfactory. Children like to tell others of the experiences and ideas they have had in working on some problems. What child, who has had some part in helping the mother or father do something worthwhile, is not anxious to tell others about it? They like to excel others or at least do as well as the majority. In order for them to be able to do this accurately, it is seen to be of utmost importance. Much reading and thought is necessary in order that they may give only accurate information. The manner in which the information is given is also recognized as important. They have to be certain that correct language usage, proper pronunciation of words, and clear and pleasant speaking are evident. They recognize the importance of these things more after a critical survey of programs which is referred to in another part of this discussion.

A student gets beneficial results from being able
to get before a microphone and talk to an invisible audience. It teaches certain characteristics, such as poise, self-reliance, proper tone of speech, and others, which cannot be attained in any other way. Nervousness is eliminated after a few trials. This one thing is one of the greatest handicaps to many students and adults. When a pupil finds he is able to perform with some degree of success, it gives him satisfaction. He is learning according to our present day idea because he gets a satisfying result from the experience he has been engaged in. By such success over the radio, the pupil will develop to a greater degree wholesome self-respect and a stronger character.

What can come from schools and camps taking to the air? Experience already indicates that production of radio programs can provide compelling educative experiences. Working on a microphone can be excellent public-speaking practice. Fear of mispronouncing a word on the air turns students to the dictionary. Writing radio scripts supplies practical English assignments with plenty of motivation for the students. And finally, producing a radio program which can compete for interest with other programs provides a challenge of craftsmanship.

Broadcasting by schools offers a great opportunity in vocational guidance. Radio broadcasting is a business and a profession and so pupils are presented with this new vocation. It is true that none of the pupils participating in the broadcast may select the field of radio as a vocation, but the chances are that some may be inclined that way. Even if none should select radio as his vocation, it would

1 Education by Radio, November, 1936.
it would still be beneficial to the pupil.

In order that a broadcast may be effective, the organization of ideas must be compact. Pupils learn how to select and present their thoughts for greater effectiveness. They learn to organize their thoughts with a clear line of logical arrangement. They learn that the program must run along smoothly and rapidly. According to our present ideas, a pupil should have a purpose for doing anything. The pupils taking part in a school broadcast gain a real motive for the careful use of written and spoken English.

There are certain techniques which the beginner must learn in broadcasting. With no audience looking for facial expressions and gestures to help carry the meaning of his words to them, the broadcaster must depend entirely upon his words and the manner and tone with which they are spoken to convey the message to the listeners. The pupil who is broadcasting learns to use common words and short statements. His ability to carry on an intelligent conversation will be greatly increased. The lack of ability to converse with people is a very common thing to find among pupils and even adults.

If well presented, broadcasts featuring instructional material will arouse the interest of the pupils and perhaps their parents in the subject being discussed. Family discussions, reading, and other activities are likely to result
from this interest. If we learn by doing, then the
causing of activities to be engaged in is a very worth
while thing. Adult learning is likely to take place
along with child learning. A home in which this takes
place will be a better home in that therein a better
understanding between parents and children will be es-
tablished. This type of home will cooperate with the
school in carrying out its worth while projects.

A greater interest in the pupil's regular lessons
will result from a well planned program over the radio.
It causes him to see his subject in a different manner
from the old traditional method of presentation. Topics
of a current nature will be more interesting to pupils
and adults. Local, national, and international affairs
will receive greater consideration and wiser action from
people who have been inspired by the radio. A new point
of view is likely to result from discussions which should
always follow a radio program. The radio can be used to
stimulate and hold interest in projects in the various
fields,— science, art, music, history, and others.

There is this objection made by some to broadcasting
by pupils, that it puts them on display and may cause a
bad effect on the child. I think this would not happen
any more than in other things, such as playing on a ball
team, representing the school on a debating team, or many
other school activities which might be mentioned. The
teacher will not let any of these have an evil effect on
the child if she is a competent teacher. Progressive
school men are advocating that school activities should
be similar to and a preparation for adult activities.
Not all pupils will take part in broadcasts. Some will
be better listeners and others better broadcasters. This,
of course, is a natural thing to expect, since we know
that there are individual differences among children and
adults. Broadcasting for the pupils is just another means
of expression and may be a part of the life of the school,
as well as a part of the activities of adult life.

If properly used, broadcasts will let the people
of the community and the general public know exactly what
is going on in the schools. They should know this, since
large amounts of money are being spent for school purposes.
If a school is producing satisfactory results, the public
will be back of whatever project the pupils and teachers
want to put over. The relation between the people of the
community will become more desirable. Certainly the chil-
dren who participate as listeners or as broadcasters become
better informed above whatever subject the broadcast deals
with and desire to learn more. An interest is created,
thus leading to activities for learning.

School systems and individual schools have broad-
cast a variety of programs, -- safety programs, club ac-
tivities, talks on various school relations, and various
types of musical programs.
The Georgia Education Association sponsored a series of broadcasts from different stations over the State during 1938-39. The programs were put on by different schools and covered various subjects. These programs not only gave schools the advantage of programs, but also gave the pupils valuable training who took part in the broadcast.

The public schools of Atlanta are reported to have had the first broadcasting service for all the pupils in the school system. Each program usually was made up of three parts: the main address, concerning some phase of education; the superintendent's message; and important items of school news.

Then there is the Atlanta Journal School of the Air. They have different schools from over the State broadcast programs. They usually consist of musical numbers, piano solos, quartettes, chorus, glee clubs, orchestras, bands, and many others which the school might care to put on; readings, and talks about their school affairs.

Many of the other states have a school of the air sponsored by organizations or institutions. I have listed in another section different schools which have broadcasting facilities, both colleges and public schools; also educational programs presented, and by whom presented.

Practically every department or class in a school could participate in some sort of radio activity. Original plays could be prepared by the Literature class, or drama-
tize scenes from selections read in class. Compositions could be replaced by original presentations over the radio. Current events could be presented by the social studies group or they could even dramatize some historical event. The vocation departments could arrange programs which would be very practical to the adults and children listening. There are any number of things children would think about that would make worth while programs for the radio.

There must be a genuine desire on the part of the school officials and the station managers before any regular use of local broadcasting stations should be set up. Selfish motives must be pushed aside if all forces are to work harmoniously in an effort to let the general public know what the school is doing and to give the pupils practical radio experience. This would encourage them to do better classroom work. The managers should not assign the schools a satisfactory time for their broadcasts and quit with that. They should help in whatever way is possible to make the program a success. The same thing can be applied to the school officials. They should do everything in their power to cause the program to be beneficial and successful.

A very close relationship should exist between school officials and station managers. Otherwise programs will be given to the children and adult listeners which will be harmful; or, if not harmful, certainly not uplifting.
It seems that most of the educational broadcasting has been poorly organized. Until there is a better understanding between the station operators and the educational forces and better cooperation, the radio is not going to serve its best in educational fields.

The teacher who is planning a radio broadcast by her class or department should become familiar with various kinds of radio programs. She should observe the characteristics in a particular program that make it a success or a failure. By observing these good and bad points she would be able to arrange a more satisfactory program.

Probably a school would have a specialist in presenting programs over the radio. Colleges are offering courses dealing with various phases of radio broadcasting. The following will give some idea about this:

1. University of Southern California, Los Angeles - Two courses in Radio Broadcasting.
5. Oglethorpe University, Oglethorpe University, Ga. - Three courses in Radio Broadcasting.
6. Chicago Medical College, Chicago, Ill. - One course in Radio Broadcasting.
7. State University of Iowa, Iowa City, Iowa - One course in Radio Broadcasting.
10. Municipal University of Omaha, Omaha, Nebraska - One course in Radio Broadcasting.

1 Univ. and College Courses in Radio, Office of Education, U. S. Department of Interior.
Columbia University, New York City -
  One Course in Education by Radio.
New York University, New York, New York -
  One course in Radio Broadcasting.
Syracuse University, Syracuse, New York -
  One course in Radio Broadcasting.
University of Akron, Akron, Ohio -
  One course in Radio Broadcasting.
Cincinnati College of Music, Cincinnati, Ohio -
  One course in Radio Broadcasting.
Western Reserve University, Cleveland, Ohio -
  Three courses in Radio Broadcasting.
Ohio State University, Columbus, Ohio -
  One course in Education by Radio.
Westminster College, New Wilmington, Pa. -
  One course in Radio Broadcasting.
University of South Dakota, Vermillion, S. D. -
  One course in Radio Broadcasting.
University of Wisconsin, Madison, Wisc. -
  One course in Radio Broadcasting.

The College of Music of Cincinnati gives the following information about their courses in Radio: "The courses we offer are principally intended for our students in music and drama. They are taught various practical sides to broadcasting, including production of programs, as well as the microphonic technic".

Columbia University offers two courses in radio.¹

RADIO WRITING. Detailed examination of current theories, techniques, and markets in radio writing. After a rapid survey of the history and practices of radio broadcasting, the course will outline the requirements of the most important types of programs. The Winter Session will be concerned chiefly with all types of single-shot scripts for which there is a market in the United States; it will take up also the writing of "commercials" and "Continuities." The Spring Session will include a careful study of women's and children's serials, and of radio adaptations from novels, stories, poetry, and plays, ancient and modern. Throughout the course the discussions will be based, whenever possible, on scripts written by members of the class.

RADIO TODAY. This course is designed to provide those working in or interested in radio with a wide knowledge of the practices, techniques, and theories of the broadcasting world. While the problems of the radio writer and director will receive the chief emphasis of the course, many other important and related aspects of broadcasting will be examined. Leading writers, directors, and executives active in radio will deliver guest-lectures, lead discussions, and conduct demonstrations. Some of the classes will be held at downtown broadcasting studios; the remainder at the University.

The Ohio State University is giving more courses in Radio in Education than any other school which has been contacted. They offer the following courses:

1. Radio in Education.
   A consideration of the place of radio in modern teaching with particular attention to the techniques employed in its use in the various subjects in elementary and secondary schools. Opportunity for observation and individual experimentation. Students registering for three credit hours will make additional excursions and observations to the production and use of educational radio programs.

2. Radio Management and Program Direction.
   A course of lectures designed to acquaint the student with the organization and operating practices of the radio industry. The regulation, allocations, and organization of stations and the industry will be studied. Written reports will be required.

   Each student will be required to make a comprehensive study of one or more of the following problems:
   (a) Planning and analysis of programs.
   (b) Program production.
   (c) Techniques used in presenting programs.
   (d) Publicity and information.

   Broadcasting Problems.

1 The Ohio State University Bulletin, "Instruction for Broadcasting Service", 1938-39.
5. Writing for the Radio.
   The study of the problems of preparing and presenting material for the radio. Emphasis on the gathering, editing, and broadcasting of news from the radio viewpoint. Practice in the writing of original manuscripts and the adaptation of material already written. Consideration of radio production problems as they affect the writer.

   A discussion of practical problems involved in broadcasting different types of instrumental and vocal solo and ensemble groups and of finding and coaching such groups. Practice in building programs with consideration of appropriate material and sequences.

7. Radio Speaking.
   Consideration of the special problems involved in adapting the principles of effective speaking to the radio audience in the composition and delivery of five basic program types: news, talks, interviews, sketches, and advertising. Special drill in voice control. Practice afforded in announcing and program arrangement.

Local conditions will determine the procedures of a teacher after she has studied and is ready to proceed in arranging her program for presentation over the radio. A meeting with the school officials and station managers may be necessary. It might be more desirable to have a committee to arrange the program rather than just one person. Of course, in this case each member would have a particular phase of the work to handle. A capable station announcer should be of great value to a school in preparing a program. He could help select the talent, help with the rehearsing, help to test the voices in order to get best effect. The pupils should be led to do as much of the preliminary work as they are able to do because they are the ones you want to get as much benefit from the presentation as possible.
If everything is done for them they will lose part of the value to be had from the broadcast.

The success of a broadcast will determine the value of future broadcasts so far as the listeners are concerned. Wide publicity is needed before a broadcast, but this alone is not sufficient. The listeners must be sufficiently interested to be anxious to hear the program. Then the program should be worth while to both adults and children. Both should receive some benefit from it. If one program meets the approval of the listeners, it will not take as much advertising for those to follow.

The United States office of Education has a radio script exchange from which scripts for programs may be secured. They might not fit in certain sections of the country or into certain programs without changes. The matter of change would require skill on the part of the teacher and pupils.

I have included a list of scripts available from the United States Office of Education, Department of Interior, Washington, D. C. I have also included a copy of a script prepared by The Instructor magazine and broadcast over station WIXAL in Boston, Mass., on June 13, 1937.

The statement of Standards For School Radio Programs as tentatively set up in Ohio follows:¹

Advertising should occupy only a minor proportion of the time of any educational program.

Here mention of sponsor at beginning and end of program is best practice. Short sections of unobjectionable advertising at beginning and end of program are acceptable. Advertising distributed throughout the program is not acceptable for school use.

To be acceptable, advertising must be an honest representation of the product. No program is acceptable for school use which attempts to enlist listener's participation in advertising contests, or invites listener to send in cartons, labels, bottle tops, or the like, or appeals directly to children to persuade their parents to buy products in order that children may receive something free.

In general, persons should be featured in programs who are accepted as authorities in the field which the program represents.

Other things being equal a program with speakers of such prominence as to give significance to their views is to be preferred.

Speakers and announcers should be pleasing and unaffected in manner. "Talking down" is resented by children. Speakers should be easy to understand and interesting to follow.

Information should be well organized, authoritative and reliable, pertinent and directly applicable to the work in which the class is engaged at the time, and should be such as to supplement the sources of information to which the pupils already have access.

A radio program of this type should exemplify the best standards in the area of expression concerned; it should represent a type of appreciation appropriate to the grade level at which it is to be used; the technics of presentation should be appropriate to the area of expression involved; and it should encourage the listener to extend his acquaintance with the area represented, or to explore the area as a means of self-expression.

Directions should be definite and clearly stated, sufficient time should be allowed after each step for the pupils to make the expected response, and the type of activity involved should be appropriate for radio presentation.

Successive steps should be definite and clearly stated and sufficient time should be allowed for necessary note-taking.
Subject should be appropriate for radio presentation. It should not duplicate the type of teaching usually done by classroom teachers unless local trained teachers of that subject are not available. Each presentation should be built upon learnings of earlier programs in the series and furnish leads into programs to follow. The listener should be referred to supplementary learning sources so that the radio lesson will become part of a larger learning process. Advance information should be made available to the teacher which will enable him to have necessary materials and supplementary aids at hand. There should be definite suggestions for listener activity.

There should be a clear distinction between material presented as facts and material which is someone's interpretation of the facts. The bias or specialized viewpoint of the program or speakers should be made clear. A speaker should be typical of the group represented or should be of sufficient prominence to make his individual viewpoint worthy of consideration.

In general, the point of view of a program should be socially constructive. Its effect, if any, on the ideals and attitudes of pupils should be to encourage the formation of the kind which the school desires to have children form. The program should present a point of view, merely, and leave the acceptance or rejection of it to the intelligence of the listener, unless it be clearly obvious that the program represents special pleading and is not an objective presentation.
LIST OF SCRIPTS AVAILABLE FROM THE U. S. OFFICE OF EDUCATION.

BIOGRAPHY

"INTERVIEWS WITH THE PAST" SERIES. . . . 15 minute programs.

Script No. 1 -- Interview with Benjamin Franklin.

Script No. 2 -- Interview with William Shakespeare.

Script No. 3 -- Interview with Napoleon Bonaparte.

Script No. 4 -- Interview with Queen Elizabeth.

Script No. 5 -- Interview with George Washington.

Script No. 6 -- Interview with Catharine the Great.

CITIES

"ANSWER ME THIS" SERIES. . . . . . . . . 15 minute programs.

Script No. 1 -- New York City
Why does the building of a skyscraper in Manhattan actually lighten the weight of the island?

Script No. 2 -- Washington, D. C.
Why was the Nation's capital moved from Philadelphia to Washington, D. C.?

Script No. 3 -- San Francisco
Why did sailors not find San Francisco Bay for hundreds of years?

Script No. 4 -- Chicago
Why is Grant's Statue in Lincoln Park and Lincoln's Statue in Grant Park several miles away?

Script No. 5 -- New Orleans
How can New Orleans be getting farther from the Gulf every year?

Script No. 6 -- Boston
How many miles was Paul Revere's ride?

Script No. 7 -- Hollywood
Who was the old-time movie idol who now runs a Hollywood "hot-dog" stand?

**HISTORY**

"AMERICAN YESTERDAYS" SERIES... 15 minute programs.

Script No. 1 -- George Washington, the Farmer.
This script tells the intensely human story of George Washington, the scientific farmer, who rode his fields at Mt. Vernon, supervised the tilling of his soil, and discussed with his neighbors such problems as soil erosion, rotation of crops, soil fertility, disinfection of seeds and the designing of farm implements and buildings.

Script No. 2 -- Braddock's Defeat.
The thrilling story of the defeat of Braddock's army in 1755, when he tried to take Fort Duquesne from the French.

Script No. 3 -- The Declaration of Independence.
In Philadelphia on July 4, 1776, the delegates to the Continental Congress convene to discuss the adoption of the Declaration of Independence. A message from New York that King George has hired foreigners to fight the colonies leads to the unanimous adoption of the Declaration. The crowds outside cheer to the ringing of the Liberty Bell.

Script No. 4 -- Wm. Penn and the Founding of Pennsylvania.
The story of an English school boy who had the courage of standing by his religious convictions against the will of his parents, to become the founder of the great State of Pennsylvania and establish a government based on friendship, liberty, and peace.

Others are available.

**MUSIC APPRECIATION**

"SYMPHONY HALL" SERIES... 30 minute programs.

Script No. 1 -- Minneapolis Symphony Orchestra.

Script No. 2 -- Berlin State Opera Orchestra.

Script No. 3 -- Boston Symphony Orchestra.

Script No. 4 -- Detroit Symphony Orchestra.

Script No. 5 -- Paul Whiteman's Concert Orchestra.

Script No. 6 -- Chicago Symphony Orchestra.
Script No. 7 -- London Symphony Orchestra.

**NATURAL SCIENCE**

"HAVE YOU HEARD?" SERIES. . . . . . . . . . 10 minute programs.

**Script No. 1 -- Vernal Equinox.**
Have you heard that Equinocial storms are not caused by the equinox?

**Script No. 2 -- Earthquakes - Science of Seismology.**
Have you heard that the greatest earthquake in modern times in this country was not on either the West or East coast, but in the middle of the United States?

**Script No. 3 -- Relationship of Birds and Reptiles.**
Have you heard that hawks and snakes do far more good than harm?

**Script No. 4 -- Wild Flower Conservation.**
Have you heard that the violet is a decoy? That its real flowers are seldom seen?

**Script No. 5 -- Volcanoes.**
Have you heard that the biggest noise the world has ever known occurred in 1883?

**Script No. 6 -- Volcanoes, -continued.**
Have you heard that volcanic action is not the result of burning and that flames and smoke do not issue from volcanoes?

**SAFETY EDUCATION**

"SAFETY MUSKETEERS" SERIES. . . . . . . . . . 15 minute programs.

**Script No. 1 -- Public Enemy Number One.**
Highway accidents. Bat's recklessly driven flivver almost hits a small girl. Bat, defiant, is hauled into court, where he receives a lecture on the dangers of reckless driving and a $25.00 fine. Bat is urged to join the Safety Musketeers.

**Script No. 2 -- Caesar Was To Blame.**
On Safety In the Home. Tim goes home with the plan of making his home danger-proof. Not until the various members of his family in succession trip over Caesar, the sister's pet cat, does he convince his parents of the necessity of a campaign of household safety.
Script No. 3 -- "He Didn't Come Up".

On safety in the water. Bat, despite re-
monstrations from the group, dives rashly
into the shallow waters of Jones Creek from
a tree. His foot gets caught in the roots
at the bottom. The Safety Musketeers rescue
him, administer artificial respiration and a
convincing argument against his foolhardiness.

Others are available.
"HOW CAN WE HELP CHILDREN USE THEIR LEISURE TIME EFFECTIVELY?" 1

MR. STONECIPHER:

Training for wise use of leisure time is a fundamental responsibility of the school, and should not be left to chance. Do you consider that statement too emphatic, Miss Clark?

MISS CLARK:

Not at all. The development of the ability and the habit of using constructively one's leisure time is a fundamental objective of the modern school. How many youthful criminals might be occupying honorable positions in their communities had they participated in worthwhile leisure-time occupations.

MR. STONECIPHER:

True. Training in leisure time should result in the child's providing much of his own recreation rather than depending upon cheap, tawdry, commercial forms of entertainment. Reaching this objective depends largely upon the vision and concern of the teacher and the community. Don't you think, Miss Hobbs, that individual experiences should be so vital that the children will turn naturally to wholesome leisure pastimes?

MISS HOBBES:

Yes, indeed I am convinced that if a school tries to awaken children's interests and help them to acquire some necessary skill, they will soon be found developing original poems, or stories, inventive bits of construction, and artistic creations of many types.

MR. STONECIPHER:

I believe that the school should provide children with a wide variety of good reading, opportunity for cooperative play, club work, nature study, and activities involving music, art, and handicraft. The child should participate in these of his own volition and for the joy he derives therefrom.

MISS CLARK:

To achieve those aims, Mr. Stonecipher, it seems to me that careful planning and flexible organization and administration are necessary; moreover this calls for

1 The Instructor, June 13, 1937.
alert teachers, well informed and keenly interested in the child and his problems.

MR. STONECIPHER:

I agree with you, Miss Clark. Freedom and flexibility must be provided, but not at the expense of self-control, group discipline, and concern for others. Emphasis must be placed upon pleasure and satisfaction rather than upon marks and standards. The goal should be the development of skills, interests, and appreciations that will find expression in the home and community.

In a small rural school, recently, I observed a group of children making flowers and other decorations. They were preparing for an important event; the crowning of their school queen. Although they had no supervision, they were working with an enthusiasm seldom found when striving for credit. This combination of art and handicraft, though informal, may have more carry-over into the leisure life of these children than do some traditional courses.

MISS HOBBES:

We earnestly hope so, for creating real and lasting interests is the teacher's responsibility.

MISS CLARK:

Mr. Stonecipher, do you recall other situations, as a result of your observations as director of rural education?

MR. STONECIPHER:

Yes, Miss Clark, I do. At a teachers' institute in Kansas, we were entertained by a band from the ranch country twenty miles from the county seat. The band, directed by a country teacher, was composed of youths, ranch owners, and employees. They rehearsed in a commodious barn loft and frequently provided entertainment for local gatherings.

In another district, a rural teacher had an improvised workbench, coping saws, a knife, sandpaper, and paint. In the schoolroom and homes of this community were found birdhouses, magazine racks, and other articles constructed during spare time. Sewing, knitting, quilting, painting, and fancy work provided interests and activities in a third school.

In still another classroom, a table in a cozy corner, with varied choices of books and magazines, was the
center of activity. After their lesson preparation, or during stormy day recesses, children enjoyed this nook. In a few years recreational reading became more common in the homes of this rural community.

MISS HOBBES:

I have found that when the children are doing real things in school they are more inclined to do worthwhile things in leisure hours at home.

MR. STONECIPHER:

You are quite right, Miss Hobbs, some school districts which I visit stress beautification of grounds, and constructive play. The culminating event of the year is a playday, featured by a basket dinner. Interests thus developed at school spread to the homes; and flowers, gardens, croquet grounds, and other aesthetic or recreational enterprises engage the attention of all.

MISS CLARK:

Miss Hobbs, do you consider that home interests and hobbies should be recognized by the school?

MISS HOBBES:

Yes, Miss Clark, I do. Hobby exhibitions encourage children to develop individual interests. Leisure-time experiences and vacation trips often furnish leads into school activities, helping to establish strong bonds between school and home. In one of my groups, for instance, Jean has a collection of minerals she might show the class. Charles has built a house, complete from cellar to shingled roof, and Grace and Dean have organized a lending library of children's books.

Activities of the school should be so real that investigation and experimentation continue into leisure, because of the drive of genuine interest.

MR. STONECIPHER:

I think, Miss Hobbs, we all realize that the teacher who enjoys excursions into bookland with her pupils, awakens in them a desire for continued reading. Construction work at home follows an interesting industrial-art project. Excursions into the country and the practice of conservation of plant and animal life result from the inspiration of a teacher who is a true nature lover.
MISS HOBBES:

However, Mr. Stonecipher, for such activities, we teachers—and parents also—should be sure that children have leisure to enjoy. Children need free time, not budgeted by adults, to develop interests and engage in wholly un-supervised activities.

MISS CLARK:

Yes, only too frequently the waking hours of a child are filled by school schedules, homework, household duties, and even special instruction in music, art, or dancing, until he has not a moment to call his own. Daily time for relaxation, play, and the development of ideas, as well as learning to get along with others, is important.

MISS HOBBES:

It sometimes happens, Miss Clark, that parents wish the teacher to help in planning for their children's leisure. One school staff has assisted parents in the following ways: guidance in the selection of educational toys; exhibiting the best new books for children just before Christmas; discovering musical talent in pupils and supplying instruments and instruction; providing school radio programs; which lead children to turn the dial to worth-while music for the family to enjoy; advising the parents about the right tools for a child's workbench; emphasizing home decoration in the art courses; giving boys lessons in camp cookery; and teaching girls how to arrange a table attractively, serve a meal successfully, and make clothes.

Moreover, parents and teachers, in cooperation, may wield an influence in creating a demand for suitable motion pictures for children, and properly equipped playgrounds and recreation centers, as well as providing for swimming instruction and playground leadership.

MR. STONECIPHER:

I believe we can assume that school citizens who have formed habits of using and preserving the facilities of libraries, museums, historical shrines, and recreation centers, will learn to accept responsibility and take part in governing themselves, and so are likely to become good community members.

MISS CLARK:

We can expect that outcome, Mr. Stonecipher, if we face this problem of leisure seriously. Here is a startling
challenge to the teacher to do his part to prepare to-
morrow's citizens to meet their problems of leisure
intelligently and happily.

MISS HOBBES:

I feel that the problem is more acute in the cities than
elsewhere. Because of congested living conditions, the
space for recreational activities is limited. What can
the teacher do, then, to help the city child develop
leisure pursuits which will occupy his spare time in a
worth-while and satisfying manner?

MISS CLARK:

In the first place, because of the great variety of in-
dividual interests and capacity, numerous leisure-time
activities must be presented to each group of children.
What will stimulate one person may bore another, and
since interest is necessary if the activity is to thrive,
the pursuit must possess a strong appeal.

In the second place, if we expect to develop interest
in any activity, it must be presented attractively and
clearly. Enthusiasm is contagious. Consequently, it
is necessary to set the stage carefully for the intro-
duction of leisure activities. Furthermore, definite
 provision must be made for an opportunity to continue
the activity after it is introduced; it will not proceed
of its own momentum.

MR. STONECIPHER:

Miss Clark, do you think it is essential to have an expert
in each field present and guide leisure activities?

MISS CLARK:

On the contrary, a guide who initiates such an under-
taking without previous training, but with spontaneity
and interest, often draws in many students eager to ex-
 plore the new field with him.

In their program of guidance, many city schools provide
the opportunity to develop worth-while interests through
club work, for which a special weekly period is arranged
during school hours. Each of several clubs sponsors a
different interest. Since membership is voluntary, homo-
geneous grouping results, and under guidance of a good
adviser the club is the potential sponsor of a lively
activity.
MISS HOBBS:

Miss Clark, what are some types of clubs which seem to be successful?

MISS CLARK:

The popularity of amateur photography and the study of current events seem to be growing radidly. A travel-via-book club, and science, art, or dramatic organizations, often arouse enduring interests in pursuits which, in adult life, will have vocational value. Whether of vocational value or not, however, leisure-time activities are a vital and necessary part of present-day education,—a fact which schools are more and more coming to recognize.

ANNOUNCER:

There has just been concluded a discussion of the subject: "How Can We Help Children Use Their Leisure Time Effectively?" This is the last in a series of programs devoted to problems of interest to patrons and teachers of the elementary schools.

Through the cooperation of Miss Helen Mildred Owen, managing editor of THE INSTRUCTOR, a magazine for teachers in the elementary grades, this series has been presented on the second Sunday of the month, at 7 P. M.

Tonight's broadcast was based on articles contributed to THE INSTRUCTOR by Ernest E. Stonecipher, Frances Hobbs, and Ella Callista Clark, and was used with their permission. They were impersonated by Frank Zacker, June Sherrill and Eleanor Campbell. Copies of the broadcast are available. Send your request to this station, WIXAL, University Club, Boston, Massachusetts, U. S. A.
CHAPTER FIVE
THE USE OF THE RADIO
and
RADIO BROADCASTS IN THE CLASSROOM

Research studies and experimentation have demonstrated that the radio can be profitably used in the classroom. It may occasionally be justifiable to interrupt a class in order that the pupils may listen to important broadcasts, but if the radio is to be used regularly in the classroom, its programs should be an integral part of the subject being taught, or contribute to, or suggest topics for later investigation. Therefore, the teacher should be encouraged to become familiar with the various programs in order to determine those of value to her particular work.

The broadcaster offers a new educational experience to the child, a new phase, and from a different angle, which is, perhaps, only partially related to the previous instruction in the same subject. Under correct conditions, this new experience will certainly interest the child, but a mere passing interest is not enough. It is what remains after the broadcast that counts. The pupil must get some general ideas, even if each detail cannot be remembered. He should acquire something from listening that becomes a definite part of his actions.

The teacher should realize that the use of the radio may be made worth-while only if the program material fits into the learning situation, at that particular time. The use of broadcasts without a purposeful plan will be a waste
of time and effort. If the teacher does not have a critical 
attitude concerning radio programs, she will probably not be 
sure of the goal she hopes to attain. Broadcasts should stimu-
late reflective thinking, supplement the teacher's instruc-
tion, and motivate class activities.

The programs are justified only as a source of sup-
plementary information which will cause the pupil to have 
an appreciation of things not available in the classroom. 
Advance preparation, guided listening and follow-up work 
should play important parts in the use of the radio in the 
classroom.

In the use of the radio for instructional material, 
the child should relate his new information to that he has 
previously secured. Therefore, it would be necessary for 
the child and the teacher to take an inventory of previous 
information which they have in a related field and then 
determine how this information can be linked up with that 
broadcast or something to be broadcast over the radio in 
the classroom.

Teachers must recognize the radio as a medium of 
learning and probably the most effective means of communi-
cation today. It seems likely that, with the wide use of 
radio in the classroom, some of the teacher's activities may 
be changed. She will probably have more time to study in-
dividual differences, to give more time for remedial work, 
and more time to devote to the direction of class activities.
It is necessary for the teacher to bridge the gap between the broadcaster and the pupils listening to the broadcast. This places the teacher in a difficult position; that of trying to bridge the gap between the broadcaster and each individual pupil, because we accept the fact that individuals do differ in most respects. If the teacher is not able to accomplish this, the program that the pupils are listening to will be tiresome to some, probably too easy for others, and the general results for the entire class will be very unsatisfactory. A good teacher gets more effective use of the radio than a poor teacher. She skillfully adapts the broadcasts to the varying needs of her pupils and integrates it with her own instruction.

It seems that if any teachers are to be replaced, it will be the ones who do not accept the influence of the radio and refuse to make use of it, in their instruction. According to the present day conception of education, the teacher and pupils live their life's situations together. It is very necessary that all agencies influencing the child's life be used in order that the teacher may interpret his own surroundings in such a way that he will become a well adjusted individual in his society.

It does not seem likely that radio broadcasts will be able to take the place of textbooks. A well planned program should stimulate the interest and give the pupils a desire for more information than was given over the radio,
and cause them to do more and wider reading than would be done otherwise. We can understand, then, why not only the classroom teacher, but also the person broadcasting the programs should be an expert teacher if this stimulation to the pupils is to be the result.

If the class is to get the maximum benefit from radio broadcasts, they must make certain preliminary preparations. The schedule of class should be so arranged that the various types of programs can be listened to at the appropriate time. Certainly you would not expect a Science teacher to gather all of the members of her science class from various other classes for a particular scientific program. Some regularity should be worked out so that lessons will be beneficial and at the same time cause no confusion to the remainder of the school.

In case a teacher is not taking up the subject in the same order as the available broadcasts treating the subject, she can very easily rearrange her program so that the two would parallel each other. At various times she might use the radio program as a preview of the lesson to be presented in class later; occasionally she might use the program as an actual classroom recitation, or she might use the program as a review of a lesson that has already been presented and discussed in class. Most any type of educational program could be incorporated with whatever subject is being taught. In fact, according to present day beliefs, there should be no definite boundary between the
teaching of English, the teaching of Reading, or any of the other subjects. Therefore, if, during an English class, they should listen to a musical program, the two should have something in common, and if the teacher is a good one she will lead the pupils to discover these common characteristics.

The teacher should take all the steps necessary to insure good reception when she is making use of a broadcast in her room. One voice over the radio might be very irritating while, if the volume were properly controlled, the voice would be pleasant to the pupils. If the teacher is not able to master this situation, and give close attention to it, she will probably be able to make use of some of the boys who can make the necessary changes for her.

There is another question that possibly should be considered: whether or not the teacher should require the pupils to make notes during the broadcasting of a program. The same thing holds true in the broadcast as during a lecture where the pupils are present to see the person talking, as well as hear him. Some pupils would be able easily to take notes and follow the main thoughts in the program, while others would be lost should they attempt to make notes of various points throughout the program. Certainly those who could easily make certain notations as the program was given would be able to cover the program sufficiently to have complete information for use by the entire class after the broadcast was completed. This would make it possible for
everyone to follow the program without any interruptions. If the regular lesson is to be broadcast over the radio, the classroom teacher must see that the objectives of the lesson are set up by her class. The radio lesson, as no other lesson, should provide for definite activities on the part of the pupils and arouse their curiosity to the point that further and more complete information will be desired.

Before listening to a lesson broadcast, preparation of the subject matter to be covered in the broadcast should be made in a manner similar to preparation for an actual classroom recitation. The teacher, of course, just as in regular classroom recitations, should work out and have set up for the pupils, certain definite aims to work towards when the broadcast is actually presented. Sometimes it might be possible for the teacher to get an outline of the broadcast and suggestions to aid the pupils in making their preparations for the class. The best preparation would be not a formal class period spent in preparing for the coming broadcast, but for the teacher, in a series of lessons, to lead up to the lesson that will be given on the radio. There will be various aims which the teacher will have in mind when she plans to have her class listen to a broadcast. She might have in mind the correct pronunciation of words. She might aim at certain factual information. Possibly she might have in mind the recognition of certain personality traits. She might aim at music appreciation or any other number of things that would benefit the child in better fitting himself for society.
The broadcaster may, in presenting lesson material, follow the usual methods in teaching the subject. If so, the classroom teacher will have the responsibility of supervising the solution of the problems set up, or of carrying out the activities suggested. If the broadcaster does not follow usual teaching procedure, the local teacher will have additional responsibilities in integrating the radio instruction with the teaching-learning situation in her class.

If the radio lesson is carefully presented, and leaves the children with radiant faces, pupil interest will take care of itself. Unfortunately, broadcasters vary greatly in their ability to motivate pupil activity, and individual children vary to a great extent in the amount of motivation they will receive. The classroom teacher has the duty of supplying the missing factors so far as her pupils are concerned. Next, she will need to assist her pupils in making the best associations and translating the heard programs into appropriate action.

If the broadcast has been rather tiresome for the listening pupils, it will be well to have a period of relaxation or a recess immediately following. Sometimes the strain of uninterrupted listening might be relieved by providing seat-work in connection with the broadcast, such as outlines, short tests, or the like, before the discussion is begun. It is for the teacher to work out the methods of procedure that suit her and her class. Available data
shows that appropriate methods are being worked out independently by many teachers with classes of varying sizes and types.

One of the most valuable methods of insuring retention is through class discussions following the presentation. Attention might be given to the following: First, pointing out disagreement, sometimes resulting in debates by members of the class; second, mentioning new viewpoints suggested by the broadcaster; third, emphasizing the most interesting facts presented; fourth, retelling stories and incidents; fifth, making word lists and learning the meaning of new words; sixth, discussing the various pronunciations, styles, and mannerisms.

Aside from the possible value to be had from regular radio lessons, the radio program is of great value to the school in other ways. The information coming over the radio is practically instantaneous. The material from textbooks is at least a year old, usually much older. So we see information which we get from the radio enable us to keep in more direct touch with the outside world. We think of education as being the process of orientating the boys and girls into adults. This would be almost impossible if we had to depend entirely upon textbooks, with information that is more than two or three years old.

It is true we have the magazine with current information, but at the same time the magazine cannot be a part of the classroom as the radio broadcast can. Magazines
are usually library material, used for reference, and not for reading that the pupils find necessary in order to secure additional information on some subject.

In the news broadcasts, pupils are given new accounts that are at the most not over eight or ten hours old. We, of course, can realize the impossibility in the process of education of such up to date information for any class without the use of the radio.

Another value would be bridging the gap between the remote rural areas and the outside world. The radio program makes it possible for the pupils and teachers to listen to reports of events in practically all of the countries of the world. A good example of such a situation is the recent Coronation, broadcast to the entire world.

Another contribution of the radio to the classroom is that of bringing authorities directly to the teacher and student. The pupils can read material about current problems. They can participate in the discussion of these problems, but over the loud speaker they can actually hear experts and scholars who have devoted a life-time to the study of these questions, as they present the results of their mature thinking. Economists, scientists, statesmen, leaders in the business world, rising musicians, stars of the stage and screen, appear before the microphone to give to the most remote listener the best that the world has to offer in education and entertainment. Among these are those
who speak with true authority. There may be a quack among them, but it is possible for the discriminating listener (discussed in another section), to separate the good parts from the bad parts. The opportunity for any boy or girl to hear the best is an educational possibility which no previous generation has had.

Another advantage of the radio program to the pupils and teachers is the encouragement of emotional Life. Showmanship is a highly developed skill in broadcasting and it has grown in importance because it has been discovered that the most effective programs were those that grip the hearers; that take emotional possession of them.

Schools have often assumed that their responsibility was only for the intellectual development of pupils. In an industry which depends for its success upon the voluntary listening of the outside world; it was soon discovered that the emotions as well as the intellect had to be taken into account. A program may be highly exciting or stimulating and convey exactly no emotion, but such a program, too, falls short of giving complete satisfaction. The best program is, apparently, that which causes the listener to think and to feel. Is this not our present day idea of what education should do?

Through the radio geography can be brought to life. Students can share in the lives of people of other lands. They can have the geography of their own country made a reality instead of just so much textbook material. Science
becomes an exciting search for truth. Such programs as "New Horizons" broadcast by the Columbia Broadcasting System, add to the interest in the above fields. Roy Chapman Andrews, Director, American Museum of Natural History, and other noted explorers give vivid pictures of different sections of the Museum.

When a teaching situation involves both thinking and feeling, it makes a much greater impression upon the pupils who are receiving the instruction. Broadcasts can be brought into the classroom by the radio that will stimulate both feeling and thinking.
<table>
<thead>
<tr>
<th>Week of</th>
<th>Date of</th>
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<th>Title of Lesson</th>
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</tr>
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<td>1st</td>
<td>January 31</td>
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<td>No Lesson</td>
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<tr>
<td>2nd</td>
<td>February 7</td>
<td>2</td>
<td>Switzerland: A Land of Mountains</td>
</tr>
<tr>
<td>3rd</td>
<td>February 14</td>
<td>3</td>
<td>Switzerland: Work in the Mountain Pastures</td>
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<td>4th</td>
<td>February 21</td>
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<td>Switzerland: Homes</td>
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<td>February 28</td>
<td>5</td>
<td>Switzerland: Transportation</td>
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<td>6th</td>
<td>March 7</td>
<td>6</td>
<td>Switzerland: Test</td>
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<td>March 14</td>
<td>7</td>
<td>Netherlands: A Low Land By the Sea</td>
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<tr>
<td>8th</td>
<td>March 21</td>
<td>8</td>
<td>Netherlands: Dairy Farming</td>
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<td>9th</td>
<td>March 28</td>
<td>9</td>
<td>Netherlands: Other Work of the Dutch</td>
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<td>April 4</td>
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<td>Spring Vacation</td>
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<td>10th</td>
<td>April 11</td>
<td>10</td>
<td>Norway: A Northland By the Sea</td>
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<td>11th</td>
<td>April 18</td>
<td>11</td>
<td>Norway: Ways of Earning a Living</td>
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<td>12th</td>
<td>April 25</td>
<td>12</td>
<td>Norway: Winter Days and Winter Shadows</td>
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<tr>
<td>13th</td>
<td>May 2</td>
<td>13</td>
<td>Norway: Summer Days and Summer Shadows</td>
</tr>
<tr>
<td>14th</td>
<td>May 9</td>
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<td>Farthest North and Farthest South--The Lapps</td>
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<td>15th</td>
<td>May 16</td>
<td>14</td>
<td>Farthest North and Farthest South--The Eskimos</td>
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<tr>
<td>16th</td>
<td>May 23</td>
<td>15</td>
<td>Farthest North and Farthest South</td>
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<td>17th</td>
<td>May 29</td>
<td>16</td>
<td>Direction and Sun Lines</td>
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<td>18th</td>
<td>June 6</td>
<td>17</td>
<td>Summary</td>
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<td>19th</td>
<td>June 13</td>
<td></td>
<td>No Lesson - Last week of school</td>
</tr>
</tbody>
</table>

The radio lessons and daily classroom work are adjusted to the basal textbook, Barrows and Parker, Journey In Distant Lands,
and the co-basal texts, Carpenter, Our Neighbors Near and Far.

The teacher should carefully read the lesson content, materials required, teacher's part in the lesson, and the suggestive follow-up before the radio lesson. She should also be familiar with the picture and map slides to be used. With this preparation the teacher will be able to better guide the progress of the lesson.

Misconceptions on the part of the pupil which occur during the broadcast should be noted by the teacher and clarified at a later time.

Time will be saved if previous to the broadcast markers are placed where references are given.

Since the pauses in the radio lessons are short, it is natural to call on the pupils who sit in the front of the room more often than those who sit in the rear. For this reason, it is advisable to change the seating arrangement of the class several times during the semester so that the pupil activity is more evenly distributed.

Materials for 4A Geography Units.
1. Basal and Co-Basal Texts
   - Barrows and Parket, Journeys in Distant Lands
   - Atwood-Thomas, Home Life in Far-Away Lands
   - Smith, J. R., World Folks
   - Carpenter, Our Neighbors Near and Far

2. Lantern Slide Set
   - 4A Radio Geography Unit Set (term loan from Educational Museum)

3. Globes
   - 22" Graphic Project Globe
   - Simplified Political Globe

4. Tests and Worksheets
   - These will be supplied as needed.

SWITZERLAND

MAJOR UNDERSTANDING:

In Switzerland people are fitting their ways of living to a mountainous country having no coastline; much rain and snow; short, cool summers; and long cold winters.
MINOR UNDERSTANDING:

Adjustments man is making

a. Wears heavy, warm clothing
b. Builds houses of wood with steep, slanting roofs usually weighted with stones; small windows with shutters; often built against the mountain side.
c. Attaches barn to house.
d. Grazes cows, sheep and goats.
e. Produces dairy products.
f. Manufactures small articles.
g. Cares for tourists.
h. Travels mostly on foot, donkeys, or bicycles while tourists generally travel by railway, boats, or automobiles.
i. Uses dogs and oxen to pull loads.

Environment factors to which man is making these adjustments

Cold winters and cool summers.

Thick forests; much snow; strong, cold winds; high mountains that offer protection; not much level land.

Long, cold winters; much snow.

Mountainous land not suited to farming; plenty of rain to provide rich pastures; short summers to grow food for winter feeding; upper barren mountain slopes feed sheep and goats.

Pasture lands are long distances from farms and large cities.

Trees are plentiful; swift mountain streams supply power near sources of supply.

Mountains provide beautiful scenery and summer and winter sports; clear, healthful air.

Narrow and steep mountain passes; distances are short; level valley roads; mountainous country makes road building expensive but tourists are willing to pay for these comforts.

Rough land; narrow passes.

References:

Basal Text: Journeys in Distant Lands, Barrows and Parker.

Co-Basal Texts:

Home Life in Far-Away Lands, Atwood and Thomas.

Our Neighbors Near and Far, Carpenter.

World Folks, J. R. Smith

Library Books:

Anton and Trini - Children of the Alpland, Olcott
Library Books, Con'd.

The Swiss Twins, Perkins
Heidi, Spyri
Moni the Goat Boy, Spyri
Ways of Living in Many Lands, Wilson

RADIO LESSON NO. 1 - A LAND OF MOUNTAINS

Tuesday - February 7, 1939

Lesson Content

1. Switzerland is a very small, mountainous country.
2. Many of the mountains are snow capped because of high altitude.
3. Altitude is distance measured above sea level.
4. The temperatures on the upper mountain slopes are too low for vegetation.
5. Switzerland has little level land.
6. Switzerland is landlocked.

Materials Required

1. Slides from the "4A Unit Slide Set", provided by the Educational Museum.
   These will be shown in the following order:
   Number K - 4A - 27.2
   Number K - 4A - 27.5
   Number K - 4B - 24.28 (This slide is in the 4B Radio Geography Slide Set.)
   Number K - 4A - 27.32 (Map of Switzerland)
   Number K - 4A - 27.5
   Number K - 4A - 27.1

2. 22" Graphic Project Globe.
3. Pointer.
4. Yellow Chalk.
5. Each child should have:
   a. Journeys in Distant Lands, Barrows and Parker
   b. Desk outline map of Europe. (This map should be kept in a notebook because it will be used in future lessons.)
   c. A half sheet of paper.
   d. Pencil.

Teacher's Part in the Lesson

Encourage as many children as possible to answer the questions raised by the broadcaster.
Point to places as necessary to aid your children.
List any new words you wish your group to add to its vocabulary.
Teacher's Preparation

A. Before the radio lesson draw the following diagram on the blackboard. Use light blue chalk to represent water and yellow chalk to represent land. To show land below sea level be sure the yellow line extends under the blue.

This diagram will be used in teaching these terms: land at sea level, land above sea level, high altitude, and low altitude.

B. Write the following directions and questions on the blackboard. These will be used at the close of the lesson.

Directions: Use Figure 131, on Page 93 in Journeys in Distant Lands, to answer these questions. Choose the correct answer from the answer list and write its letter on your page.

1. What suggests a low or cold temperature?
   a. 
   b. 
2. What suggests a high altitude?
3. Where is the altitude lowest?
4. Find the top of the highest mountain and tell what it is called.
5. On what part of the mountain do you find vegetation?
6. What part of the mountain is rocky?

Answer List:
   a. foot of the mountain
   b. high altitude
   c. low altitude
   d. lower mountain slope
   e. mountain
   f. mountain peak
   g. old, worn-down mountains
   h. snow
   i. upper mountain slope
   j. young, rugged mountain

Correct answers:
1. b - h
2. e
3. a
4. f
5. d
6. h

Have the pupils check their papers. If necessary, help the children gain the correct concepts for the above terms.
Suggested Follow-up of Radio Lesson

A. Read and discuss the references listed. The following questions serve as a guide for the week's work. The teacher may wish to add others.

Farming in Switzerland

1. Where is most of the farming done?
2. Why are the farms so small?
3. Why are most of the crops grown on the lower altitudes?
4. What grains do the people raise?
   a. b. c.
5. What is a grain? (Use your dictionary if necessary.)
6. What vegetables do the people raise?
7. What fruit is raised?
8. How is most of the work on the farm done? Why?
9. How is farming in Switzerland like farming in the Mediterranean Lands? You should now be able to answer this question without the help of your book.

Answers to the following questions are found in Home Lands and Other Lands, Book 1, Branom and Ganey, pages 121-122. This book is available in some buildings or in the library.

1. What kind of summer does Switzerland have?
2. What is a hardy grain? A hardy vegetable?
3. Name three hardy grains.
4. Name two hardy vegetables.
5. Can you now explain why the Swiss farmers raise hardy crops?

References:
Atwood and Thomas, Home Life in Far-Away Lands, pages 127, 129; also Figure 173, page 129.
Barrows and Parker, Journeys in Distant Lands, page 92.
Carpenter, Our Neighbors Near and Far, page 131.
CLEVELAND PUBLIC SCHOOLS

SCHEDULE FOR ELEMENTARY SCIENCE RADIO LESSONS
GRADES 4B and 4A

FEBRUARY 1939 TO JUNE 1939

Unit III - Why Do Living Things Need Air and Water?

Lesson No. 1 - First Lesson of Unit - February 2

Unit IV - How Do Magnets Work?

Lesson No. 2 - First Lesson of Unit - March 2

Unit V - How Do We Know The Earth Is Moving?

Lesson No. 3 - First Lesson of Unit - March 23

Unit VI - What Heavenly Bodies Do We See In The Sky?

Lesson No. 4 - First Lesson of Unit - April 27

Unit VII - Why Should We Not Pick The Wild Flowers?

Lesson No. 5 - First Lesson of Unit - May 18

Review -

Lesson No. 6 - Review of Semester's Work - June 1

Test -

Lesson No. 7 - Test of Semester's Work - June 8

ELEMENTARY SCIENCE RADIO LESSONS
Specific Directions for Each Lesson

Grades 4B and 4A

UNIT III - WHY DO LIVING THINGS NEED AIR AND WATER?

Lesson No. 1 - First Lesson of the Unit - February 2, 1939

Materials Required:

On the table in the front of the room have:
1. An empty box, at least as large as a shoe box. Have this box wrapped attractively as you would a gift. When you are asked to unwrap and open the box, do it slowly so as to create anticipation on the part of the pupils.

2. One glass of water - Mark this glass 1
   One glass of pebbles - Mark this glass 2
   One empty glass - Mark this glass 3

3. Each child should have:
   a. A book
   b. A tablet

4. Each leader should have the following materials on his table:
   a. A cork
   b. A glass
   c. A pan partly filled with water. These (a, b, c) will be used to perform the experiment suggested by slide No. 1 -- Why does cork go to the bottom?
   d. A small paper bag. These bags should not be larger than a pound bag. The size of a bag that is used for a few pennies worth of candy will work very well.

5. Books - Discovering Our World, Book One - Give one to each child before the broadcast.

Before the Broadcast:

Be sure that the class has been divided into groups and that each child knows in which group he is and who his leader is.

Following the Broadcast:

1. Have one boy "pop" his paper bag.
2. Use slide No. 1 Pe-4A - Why does the cork go to the bottom?

Additional Directions:

List on the blackboard all worthwhile questions asked by the children during the study of the unit. Keep these questions on the board until the unit is completed. After each lesson check off any of the questions that have been answered in the broadcast. Encourage the children to look up information on their questions which have not been answered.

Basic Book:
Discovering Our World, Book One - Beauchamp, Melrose, and Blough - Pages 85-107.
<table>
<thead>
<tr>
<th>TIME</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tr>
<td>9:05</td>
<td>4th Grade Spelling</td>
<td>5B Song Study</td>
<td>4th Grade Spelling</td>
<td>3A Arithmetic</td>
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<td>9:30</td>
<td>Rhythmic activities</td>
<td>First Yr.-Grade 1</td>
<td>Kindergarten Stories</td>
<td>Rote Songs</td>
<td>First Yr.-Grade 1</td>
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<td>6th Grade Science</td>
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<td>5B Geography</td>
<td>Music for Young</td>
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<td>6B Handcrafts (Bldgs.</td>
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<td>Listeners - 3rd Yr.</td>
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<td>with craft rooms)</td>
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<td>4A Health</td>
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<td>5B Handcrafts (Bldgs.</td>
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May 31, 1939.

(*) The identical Safety Program will be presented twice each week to facilitate school scheduling.
First Aid - Artificial Respiration.

Good morning, boys and girls. This morning we shall learn about artificial respiration and how to use it.

Who can tell what we mean by artificial respiration? (10 Sec.) It is a method of carrying on breathing for a person who has stopped breathing. It is causing the air to flow in and out of the lungs. This is done by pressing on the chest and then releasing the pressure.

Certain accidents cause a person to stop breathing by shutting off the air supply. The person becomes unconscious, and death follows a short time after breathing stops. Artificial respiration must be started as soon as possible after the accident. If it is begun in time it may save the person's life.

Will you name some accidents where artificial respiration should be used? (15 sec.) You probably gave drowning first because that is a common accident which causes a person to stop breathing. Electric shock is another. Sometimes a blow on the head, neck or below the heart will cause stoppage of breathing. A person who has been caught in a cave-in of sand or gravel may stop breathing because of the pressure on his heart.

Did you say that it is also dangerous to breathe the gas that is used for heating and cooking in the house? (3 sec.) If anyone breathes too much of this gas he will be overcome and must have artificial respiration at once.

How can you tell when gas is escaping? (10 sec.)

You can tell by the unpleasant odor of it.

What should you do if you smell escaping gas? (15 sec.)

Open the windows and doors, and then call the gas company. They will send someone out to inspect your house. Of course you would remember not to light a match until the inspector told you that it was safe to do so.

There is another gas that is very deadly. It comes from the exhaust of automobile engines. Do you know what it is called? (5 sec.)

Carbon monoxide gas is very poisonous in a closed room even if only a very small amount of it is in the air. Running the engine of a car for only five minutes in a closed garage puts enough carbon monoxide in the air to make it deadly to breathe.
How can this danger be prevented? (10 sec.)

The window or door of a garage should always be left open when the engine is running while the car is in the garage. Is carbon monoxide gas found any place except in the exhaust gas of automobiles? (10 sec.)

It is found in the gas used for heating and in smoke from fires, coal stoves and furnaces.

Why is it difficult to tell when carbon monoxide gas is present in the air? (10 sec.)

Because it is a gas without color or odor.

Now I want to tell you a true story which happened right here in Cleveland.

One fine spring afternoon, a boy hurried home from school, whistling happily. He turned into the driveway of his home and walked to the garage to get his bicycle. As he drew near, though the garage doors were shut, he could hear the engine of the car running. He threw open the door, and there, on the floor of the garage, lay his father, unconscious.

Without wasting a second, the boy dragged his father out into the fresh air of the driveway. Fighting to control his excitement and to keep calm, he began trying to save his father's life, using the method he had recently learned and practiced.

After some minutes a passer-by saw him and came to him. Without stopping what he was doing, the boy said to the man, "Loosen his collar. --- Telephone the fire department. --- Ask for the rescue squad."

In a short while the firemen were there, but by that time the boy's father had started to breathe naturally, and the boy had the great pleasure of knowing he had saved his father's life.

What do you think caused the boy's father to stop breathing? (5 sec.)

He had been overcome by monoxide gas from the exhaust of the automobile engine.

What did the boy do to save his father? (20 sec.)

You probably gave several answers to that question. First, he kept calm, and that helped him to know the right things to do. He got his father into the fresh air at once, and then he started artificial respiration.

Would you like to learn how to give artificial respiration? (5 sec.) The method most commonly used is called the prone pressure method. After the broadcast you might like to find
out why that is a good name for this method.

The method we shall learn today is the prone pressure method.

May we have the first slide, please?

Look closely at the position of the patient. One arm is bent at the elbow, and his face is turned outward, resting on that forearm. His nose and mouth must be free for breathing. His other arm is extended above his head. If a person has been in the water it would be well to have him lying down-hill, facing the down slope.

Now look at the rescuer. He is kneeling with a leg on each side of one of the victim's legs, not too close to the hips.

He places the palms of his hands on the small of the patient's back, his fingers resting on the ribs, the little finger on the lowest rib. The tips of his fingers will be just out of his sight.

This is called the first position. In this position, he is not resting any of his weight on the patient -- he is merely placing his hands.

Now let us look at the next slide.

This shows all three positions of the movements which cause air to go in and out of the patient's lungs. This slide shows the position of the patient's arms more clearly than the first slide did.

Do you recognize the first position? Will a child point to it? (10 sec.)

The middle boy is showing the second position. From the first position, keeping his arms straight, he swings forward slowly, so that his weight is gradually brought to bear on the patient. When his weight is fully on the patient, his shoulder is directly over the heel of his hand. What is the position of his elbows? (5 sec.) It is important to remember not to bend the elbows.

The boy showing the second position is about the size of his patient. But even if the two are the same size, the rescuer must remember to use care not to be rough. The victim has already received a shock -- you must not add to his injury by being rough. Especially if there is water in his lungs must you be careful in your handling of him. If a large man were giving artificial respiration to a child, what would he need to remember. (10 sec.) He should remember not to use too much pressure.

From this second position, the rescuer swings backward, removing the pressure completely, and he rests, sitting on his heels, with
his hands hanging at his sides. This is the third position. Rest in this position about two seconds.

These movements -- place hands, swing forward, release and rest, -- should be repeated from twelve to fifteen times a minute. Thus the patient is made to breathe every four or five seconds. It is hard for beginners and excited persons to go slowly. The best results are obtained by keeping a regular rhythm. How can you be sure your count is right? (15 sec.) It is a good plan to have someone time the count with a watch.

Artificial respiration should be given without stopping until natural breathing starts or until a doctor says the patient is dead. Sometimes it takes from four to six hours to revive a person. Turn off the lantern please, and let us have the demonstration by the boys who have practiced giving artificial respiration.

I hope there is a large table that the boys can use, so that everyone in the class can see them.

Are you ready, boys? Will the class see if the patient is in the right position? (5 sec.) Does he have one arm bent at the elbow, with his face turned outward and resting on that hand? (5 sec.) Is the other arm extended upward? (5 sec.)

Now look at the rescuer. Is he kneeling at the proper distance from the patient's hips? (5 sec.) Will the rescuer place his hands? (5 sec.) Are they on the small of the patient's back with the fingers resting on the ribs? Remember not to put your weight on the patient just yet. This is just to see if you know the correct position for your hand. Now remove your hand and sit back on your heels.

All ready! (3 sec.) With my count, please.
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- And rest

Are there two other children who would like to try? (20 sec.)

Is the position of the patient right? (10 sec.)

Is the rescuer in correct position? (5 sec.)

Will he place his hands? (5 sec.)

Are his elbows straight? (5 sec.)

The rescuer may relax and sit back on his heel and rest.

All ready. (3 sec.)
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- And rest
Place hands -- Swing forward -- Release -- and rest

Thank you for the demonstration.

Your teacher has written a few suggestions about Artificial respiration on the board. I hope you will copy them after the broadcast. You will also want to practice giving artificial respiration until you can do it very well. Then if you should discover someone who had stopped breathing because of inhaling carbon monoxide gas, or because of drowning, or electric shock, or because of any other accident that stops breathing, you would be prepared to save him.

I hope you will never be called on to give aid in emergencies such as we have talked about today, but if you are you should know what to do. Remember to keep calm, and do the best you can, and your knowledge of artificial respiration may save a life.

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CLEVELAND PUBLIC SCHOOLS

BROADCAST NOVEMBER 2, 1937 6B RADIO GEOGRAPHY

Manufacturing in France

Good morning, boys and girls.

Today we are going to discuss "Manufacturing in France."
If you were asked to name the two natural resources most necessary in present day manufacturing, which two would you name? (10 sec.) Did you say coal and iron ore? -- Our first slide has several things to tell concerning the French coal supply. (5 sec.)

Here are shown many black dots on the map of France. They represent all the coal found in France. How many dots are there? (5 sec.) How many dots represent all the coal found in Belgium? (7 sec.) Does France have more or less coal than Belgium? (5 sec.) How much more? (7 sec.) Now notice how many dots represent all the coal of Great Britain. (3 sec.) Thirty-two dots are needed to represent all the coal of Great Britain. Does Great Britain have more or less coal than France? (5 sec.) How much more? (5 sec.) With eight times as much coal, Great Britain is a far more important coal country than France. What other French neighbor has large coal supplies? (5 sec.) The German coal supply is represented by twenty-nine dots. This supply is over seven times as great as that of France. What, then does the map tell concerning the French coal supply? (5 sec.) What does it tell concerning the supply of Great Britain? (5 sec.) Of Germany? (5 sec.)
The next map has several things to tell concerning the French supply of iron ore. (3 sec.) What is the first thing you notice? (5 sec.) The French ore supply is so great that forty-two dots have been needed to represent it. How many dots represent the British supply of iron ore? (5 sec.) How many represent the German? (5 sec.) What, then does the map tell you concerning the French ore supply? (10 sec.) France has more iron ore than any other country in Europe. It has about four times as much as Britain, and over five times as much as Germany.

The coal map and the iron ore map have shown two very important things concerning French natural resources. France has too little of one and an abundance of the other. Which natural resource is short? (5 sec.) Which is plentiful? (5 sec.)

The next map has several things to tell concerning still another resource. (3 sec.) The black dots on this map represent hydro-electric power. What is hydro-electric power? (8 sec.) Did you say electricity developed from water power? How many dots represent the electricity developed in France? (8 sec.) How many dots represent that developed in Great Britain? (5 sec.) How many dots represent that developed in Germany? (5 sec.) What, then, does the map tell concerning hydro-electric power in France, when compared with that in Britain? (5 sec.) When compared with that in Germany? (5 sec.) The white dots on the map represent the electricity yet to be developed. How many white dots in France? (8 sec.) France has fourteen white dots. This map then suggests that France has not only developed more electricity from water-power, but has more left to develop than either Britain or Germany.

Turn once more to the coal map. (3 sec.) It should suggest a reason for the development of hydro-electricity in France. What reason is it? (5 sec.) Did you say the small amount of coal? The next map should suggest a reason why France has been able to develop electricity from falling water. (3 sec.) What reason is it? (8 sec.) Your teacher will point to the Pyrenees (2 sec.); to the Alps (2 sec.); to the Jura Mountains (2 sec.); to the Vosges Mountains (2 sec.); to the Central Plateau (2 sec.); In all these well watered highlands mountain streams are found. In the Alps, many power houses have been built, and electricity is today used in mountain, as well as lowland industries.

The next picture shows one of these mountain valley power houses. (3 sec.) From high up the mountain side, water is carried through great pipes to the power house in the valley. There, the force of the falling water is turned into electricity. Over wires this electricity can be carried from the mountains to cities on the plain. Some manufacturing cities, however, are found in the highlands. The next picture shows one of great importance in an Alpine Valley in southeastern France (3 sec.)
This is the old city of Grenoble. Here, glove making has been an important occupation since early days. Flocks of goats in the near by mountains furnished the first leather. Today skins are imported. Even though the industry is an important one, it is still carried on chiefly in the homes. Kid gloves require little material, but considerable skill. Can you suggest why it is wise to manufacture such light, valuable products in a mountainous region? (10 sec.) How many believe that such products are best, since they can be easily transported? --- They have little weight but great value. Glove manufacture requires little power, and on that account is well suited to a region having little coal.

Once more turn to the physical map of France. (5 sec.) Your teacher will point to the most important coal field of France. (3 sec.) It is in the north, reaching into France from Belgium, close to the French city of Lille. (3 sec.) In eastern France, close to Germany, point to Lorraine. (5 sec.) Here, the great iron ore deposits are found. Lorraine is one place in France where blast furnaces are common. Lorraine pig iron and steel may be sent to other parts of France for manufacture. What natural resources should these places have, if they are to work in metals? (5 sec.) Since there is so little coal in France, the chief metal working district is on the coal field of northern France. Another metal working section is on small coal fields in the Central Plateau. Had France been as well supplied with coal as it is with iron ore, the development of its iron and steel industry would have been quite different.

Other French industries have been adjusted to the lack of coal. Of these, textile manufacture is the most important. In France, more people are employed in the textile industry and in the manufacture of clothing than in any other kind of work. These industries had their beginnings in early days, when wool, flax and silk were raised in France in sufficient amounts to supply the spinners and weavers. Today, these raw materials are imported. Imported raw materials and little coal have been largely responsible for a special kind of French textile manufacture.

Would you expect the French textiles to be coarse or fine? (3 sec.) Would you expect them to use much or little raw materials? (3 sec.) Would you expect them to bring high or low prices? (3 sec.) French ribbons, laces, velvets, silks, chiffons, and organdies are luxury products. They bring high prices not because of the material they contain, but because of the skill, good taste and fine workmanship that have made them possible.

In northern France, about Lille, is one of the important textile regions, making cotton, woolen, and linen fabrics. South of Lorraine, in Alsace, is another important cotton region. (5 sec.) In the valley of the Rhone, about the city of Lyon, is the important silk region.
Of all French manufacturing centers, Paris is the greatest. Your teacher will point to this city. (3 sec.) Paris is so located that it can receive materials from all the manufacturing districts of France. Silks and woolens, cottons, and linens move into Paris from the textile towns. In Paris skilled dressmakers, tailors, and milliners change these materials into gowns, suits, and hats, which again represent skill and fine workmanship. Shops in Paris are small. Would you expect them to use great quantities of coal? (5 sec.)

France manufactures many other things besides textiles, clothing, gloves, and millinery. French perfumes, powders, and soap; French pottery, jewelry, and wines are world famous. All these and many more, represent skill. The little material of which each is made, has been so shaped, that the product is one of value. Had France been well supplied with coal and raw materials, there would have been less need to market skill.

In the time that is now left, turn to the questions on the board. They should help you state some of the outstanding points concerning French industry. Questions 4 and 5 will require further study.

CLEVELAND PUBLIC SCHOOLS

BROADCAST APRIL 2, 1934.

Good morning, boys and girls. You remember the rhyme, "Polly put the kettle on and we'll all have tea." Well, you see, the kettle is on, but I must tell you that we are going to have something better than tea, today. See if you don't agree with me when the lesson is ended.

You have heard the story of James Watt, a Scottish boy, just about your age, who sat in his mother's kitchen watching a kettle of boiling water. He noticed the same things that you must have noticed many times and can see now. The story goes on to tell that for the rest of his life Mr. Watt was influenced by the thoughts that came to him as he watched water boil. As a result of his interest, he did many things of value in the development of engines that work for us today.

The water in the kettle in your room is boiling. We have already learned that when water reaches the boiling point it changes from a liquid to a gas called water vapor. But we also learned that water is evaporating around us all the time, at a temperature much lower than the boiling point. You remember that even ice evaporates. So we know that water changes to vapor under different conditions. Today we shall talk about water vapor that is made by boiling water. It is called "steam." Will the teacher please write the word "steam" on the blackboard: s-t-e-a-m.
Shall we, like the Scottish boy, look at this kettle of water to see what we can learn about steam? If you are using a pan instead of a tea kettle, push the lid slightly to one side so that the steam will have a small outlet. Notice the spout of the kettle. Do you see a cloud of partially condensed water vapor near it? (5 seconds) When the hot steam came in contact with the colder air, what happened? (5 seconds). Yes, it partially condensed. So it really is a cloud, isn't it.

Now, will you look carefully to see if the cloud of partially condensed water vapor is at the very tip of the spout. (5 seconds) No, there is a space between the cloud and the spout. Yet, if this cloud has been formed from steam, the steam must have passed through the space before it became visible as partially condensed water vapor. Then what must be in the space between the partially condensed vapor and the spout? (10 seconds) Steam must be there, but we cannot see it. Even though we cannot see it, we know steam must be there.

1. The drawing on the blackboard will help make this clear. Let us look at it. The partially condensed vapor is shown a short distance from the spout of the kettle. The steam formed within the kettle by the boiling water escaped through the spout and partly condensed when it reached the colder air. We see this small cloud of partly condensed vapor but steam itself cannot be seen.

Now you have discovered an important fact about steam. The teacher will write it on the board.

No. 1 "Steam is invisible". (15 seconds).

We have another experiment to perform. First, will the teacher remove the kettle or pan of boiling water from the heat. (10 seconds) Will a girl or a boy please come to the table. (7 seconds) As I name these articles; show them to the class: a test tube fastened in a clamp, (3 seconds); water (3 seconds); Follow these directions carefully. Put about one-half inch of water in the test tube. Be sure there is only a little water. Just about one-half inch. (10 seconds). Now fit the cork into the mouth of the tube, but not too tightly. (10 seconds) Hand the corked test tube to your teacher so that she can see whether or not it is satisfactory. The teacher will then hold the test tube over the heat, tilting it so that the cork is pointed away from everyone, including herself. The pupils may be seated. (5 seconds) I have been preparing a test tube with just a little water in it, and now I am holding it over the flame. The water in the test tube is a liquid. How will it change when it reaches the boiling point? (5 seconds) It will become a gas or water vapor called steam. Will we see it? (3 seconds) Why not? (5 seconds) Has the water in your test tube started to boil? (10 seconds) (Sound effect, cork popping -- 5 seconds) What happened? (5 seconds) Did your cork pop out, too? If not, hold it over the heat until it does. Let us talk about the reason for the popping of the cork.
What was in the tube to begin with? Water. (5 seconds) Into what did this water change? Steam. (3 seconds) What pushed the cork out? (3 seconds).

Steam pushed the cork out. As the steam was formed, it needed more room and kept pushing about in all directions. This is one of the very interesting and wonderful things about steam -- its power to push. It pushes, or exerts pressure, while expanding.

You know how you can expand your chest by taking a deep breath. Do this with me. Put your hands on your chest. Take a deep breath. Do you feel your chest expanding or growing larger? Steam can expand to fill a space almost 1,700 times as great as the volume of water boiled. In other words, if you boil one pint of water, it will change into nearly 1,700 pints of steam. You can imagine how much power it has when expanding or pushing about to find more room.

You will want to continue the list of the things you have discovered about steam. The teacher will write them under the first fact on the board. Statement No. 2 will be -- Steam expands. (15 seconds).

And while it expands, it pushes. So, for statement No. 3 the teacher will write -- Steam pushes while expanding. (20 seconds)

You have seen a little steam do a little work, but every day steam is being used to do great tasks. How many of you have ever traveled by train? Did you notice the large locomotive that pulled the cars? The power that turned the wheels of the locomotive was steam, the same power that pushed the cork out of the test tube.

It took men a long time to figure out how to make a steam engine, but today one steam engine can do the work that was formerly done by many men. When you hear the word "engine", perhaps you think, "Oh, that is something for men to know about and understand," but the steam engine is something which not only men, but you, too, can understand.

On the work table is a bicycle pump or automobile tire pump which has been taken apart. Your teacher will show you the part called the cylinder. (5 seconds) Now she will show you the part that fits inside the cylinder. This part is called the piston. (5 seconds) She will put the pump together by putting the piston inside the cylinder.

Will a boy go up to the table and operate the pump? (10 seconds) Do you notice how the boy is pushing the piston back and forth in the cylinder? Cylinder and piston are also the names of important parts of a steam engine. Men knew that because steam pushes, they must give it something to push.

So in a steam engine the steam is let into a cylinder where
it pushes a piston back and forth. This moving piston is connected to machines in such a way that, as the piston moves, it works the machine. For instance, in some school buildings, a steam engine works the fans that send fresh air to all the rooms in the building.

During the week look up some interesting facts about the history of the development of the steam engine. You will want to learn about the first steam engine made by Hero and used only as a boy. Then, too, you will want to know who invented the first steamboat, and how the steam engine affected transportation. But best of all, try to see a steam engine at work.

And, now, we are going to have a contest, so listen carefully. I know that some of you have little boats that you bought at the ten-cent store. Perhaps your class will want to get one, too. One type of boat is called the Pop-Pop boat -- p-o-p, p-o-p, and another is called the Pon-Pon boat -- p-o-n, p-o-n. I am wondering which class will send in the best answer to the question: What makes this toy boat run? Please write this question on the board: What makes this toy boat run? (15 seconds) Answers must reach me by April 10, and I hope you will use an expression that I used in the lesson today.
CHAPTER SIX

VIEWS OF EDUCATIONAL MEN as to

THE RADIO IN EDUCATION

ROBERT M. HUTCHINS - University of Chicago.

If industry will recognize unequivocally its responsibility to education; if education will work out a national plan that meets the needs of our people, I believe that the industry will prosper still; that education will be able to use at last the new tool that technology has given it, and that together we may take a significant step toward the civilization of our people.


It really wasn't quite fair of science to crowd us in this way, but the radio is here, whether we like it or not, the man in the street, the man on the other side of the gap we have been talking about, will listen to the radio when he will not go to church or to a lecture, or when he declines to pick up the book we think it will be good for him to read. Of course he'll turn the dial if we do not hold his interest, and perhaps he'll make the shift despite our best behavior, but have we any right to assume this? Don't let us forget the steady rise in the quality of the music demanded by the radio audience, and furnished because demanded. Already the people in a hurry, the people with an ax to grind, the pressure groups and the propagandists have found the radio very well adapted to their needs. Shall we leave the field to them?

ROBERT G. SPROUL - University of California.

In this era of change, with its steady increasing proportion of leisure time, it is imperative that radio broadcasting shall be an instrument of culture and not an agency of confusion. The future of America depends upon our ability to disprove by means of education Lord Macaulay's dictum that democracy is government by count of the polls of the ignorant. Of this process, if it takes place, radio must be an integral part.

HAROLD L. ICKES - Secretary of the Interior.

The development of the radio is having a profound effect

1 School and Society, - Vol. 40 - 1934
upon the education and mobilization of public opinion.
As a means of supplementing, in fuller fashion, the news
brought to us by the printed page, it seems destined to
have an increasingly important place in our lives. By
means of the radio, the man who wishes to do so can get
in the full speeches of those in public life. He has
the opportunity of hearing speeches actually delivered.
He can judge of the sincerity of the speaker, and he
can weigh his arguments as his theme unfolds. Not only
he and his neighbors, but his fellow citizens in the
furthest corner of the country, can hear the same
speech at the same time. Nor do they have to confine
their attention to a discussion of one side of a public
question. They can hear both sides of it and thus be
in a favored position to weigh the merits of the points
at issue.

JOHN ERSDKINE — Columbia University.

I have tried to suggest that education on the radio
must, for various reasons, be quite different from
education off it; that the moment the educator talks
on the radio, he must not be only learned but interes-
ting; that the radio should not try to rival the schools
in work which schools do better; and that there is a
large mass of information to which as yet we do not have
general access and which the radio is well fitted to im-
part.

DR. WALTER DAMROSCH: —

Now as regards the future of education in radio, my own
experience has taught me that he who seeks to interest
our young hearers by such means must himself first learn
that the radio is such a different means of approach that
he must first learn the technique of proper broadcasting.
His pupils cannot be eyedminded. They must be ear minded.
That means that first of all he must couch his lecture,
his information, his inspiration, in short simple phrases.
He himself must learn diction so that he can be easily
understood. At the same time I do not believe that edu-
cation over the radio can ever take the place successfully
of the teacher in the classroom. The two can work won-
derfully hand in hand. In music, the radio can bring
orchestral concerts to the young people and can teach
them the tone qualities of the different instruments.

JOHN DEWEY —

The radio is the most powerful instrument of social edu-
cation the world has ever seen. The eye is superior to
the ear with respect to the understanding of physical
and technical matters. But in all social matters the
mass of the people are guided through hearing rather
than by sight.
boards of education. These questions were:

1. How many schools have receivers?
2. How many schools receive the school broadcasts regularly?
3. What are the principal stations received?
4. What subjects are most listened to?
5. Can the school children follow the presentation?
6. What experiences were obtained from the school broadcasts; above all, were the presentations an enrichment of the instruction?
7. Based upon the experiences obtained from these broadcasts, what can be said for the further elaboration of the school radio programs?
8. What experience of a technical nature was gained?
9. (A question on "Der Schulfunk").
10. Do the people of the community take any part in listening to broadcasts received by school apparatus?

Although any estimation of the number of school sets is complicated by the question of who owns the set, a total of 15,000 school and teacher sets is supposed to be the best approximation.

In answer to the second question some of the factors preventing regular reception were given. These are reminiscent of our own difficulties in the United States. They were:

1. Lack of correlation between the broadcast material and the regular school program.
2. Unfavorable broadcasting hours.
3. Lack of special rooms for receiving sets.
4. Technical difficulties.

In general, elementary schools listened to the broadcasts with more regularity than schools of higher level.

It is necessary to keep in mind the fact that selection of subjects for reception by schools was governed by the available choice. The following list gives some indication, however, of the subjects which were especially valuable for elementary and intermediate schools. The figures refer to the number of
times each subject was specially mentioned.

Musikalische Darbietungen. . . . . . . (music). 29
Deutsch Kunde Darbietungen: (German culture). 25
Ernst Kindliche Darbietungen. (Geography). 25
Naturkundliche Darbietungen. (Nature Study). 23
Fremdsprachliche Darbietungen.(foreign Language). 21
Geschichtliche u. Kultur geschichte Darbietungen. . . . . . . (History). 17
Staatsburgerkundliche Darbietungen. (Civics). 12
Reportagen . . . . . . . . . . . . . . (Reports, news). 11
Akutelle Darbietungen. . . . . . . . (Current topics). 8
Heimat kundliche. . . . . . . . . . . . . (Community study). 7

In the majority of cases the children were able to follow the presentations, altho the special problem of suiting broadcasts to both city and country schools was mentioned repeatedly. In addition, several criticisms were directed at the vocabulary and content level of the presentations, stressing the fact that they were adapted to the upper grades. Almost all reports mentioned the fact that some of the speakers talked too rapidly, and did not present the material in a clear manner.

It was the consensus that the broadcasts without doubt were an enrichment of instruction and of great value. The following adverse comments were made, however, with reference to these school broadcasts. They were:

1. Lack of personal touch.
2. Nothing for the school children to do.
3. Lack of visual reinforcement.
4. No consideration of the individual school child.
5. Only entertaining.

Some criticisms showed real concern for the effective use of the broadcasts, the preparation made for them, and the attitude which the teacher brings to the broadcast lesson. On the other hand many varied reasons were given for favorable judgment on broadcasting to schools. Such statements as
inspirational, vitalizing and completing, training attention, giving knowledge of everyday affairs, and making the child feel a part of them, broadening, stimulating thought, and training hearing repeatedly were encountered.

The following types of suggestions were received in reply to question number seven concerning the results of experience in using the school broadcasts. These suggestions give evidence of close observation of the effects of the broadcasts on the children.

(Many of the suggestions will be found identical with those listed in the Ohio School of the Air reports.)

(a) **Subjectmatter.**

1. School broadcasts must be only a supplement to, not a substitute for classroom instruction.

2. They must offer what the teacher cannot offer.

3. No broadcasts should be made of material where vision is essential for the full effect.

4. More time should be spent on modern language.

(b) **Method of Presentation.**

1. Material should not be too difficult.

2. The method of expression and the style should not exceed the comprehension of the children.

3. The presentation must be popular and stirring.

4. When difficult ideas are given, time should be allowed to think them over.

5. Broadcasts should fit the vocabulary of the child.

6. The material should be concrete and clear.

7. Persons who are trained in understanding children should present material.

8. Foreign texts should be given by foreigners schooled in teaching methods.
9. The presentation must have a recognizable planned sequence.

10. Serial presentations on a single subject are preferable.


12. Presentation should not be too long; at present not longer than twenty minutes.

13. Longer presentations should have pauses for relaxation.

14. There must not be too much material packed in the presentation.

15. The presentation should be divided into well-defined parts.

16. Repetitions should be made -- perhaps by means of questions.

17. Frequent summaries are desirable.

18. There must be a time during the broadcast for activity.

19. The speaker should remember to speak slowly.

(c) Publicity

1. Programs must be announced in plenty of time.

2. A literature index, pictures, and special methods of using the programs should be given.

3. The age levels of the programs should be announced.

4. Notification of program changes should be made, and released well in advance of the broadcast.

(d) The Teacher's Part.

1. The teacher must choose the broadcasts carefully.

2. The teacher must prepare for them.

3. Visual aids should be used.

4. Children should be equipped with pencil and paper to make notes, write figures, and names, and be active in other ways.
5. The teacher must follow up the broadcast with a discussion and test.

6. Children must be accustomed to listening to the radio.

In addition to the suggestions listed above, certain benefits of the radio were mentioned. The possibility of hearing music broadcasts in remote places and the stimulation from hearing first-class actors were two points emphasized in the case of children not having access to these cultural advantages. Language teaching was reported to be aided by children hearing the voice of another person besides the teacher, and the hearing of correct pronunciation and intonation. Broadcasts also were reported to break the monotony of foreign language teaching through the increased interest engendered.

The upper schools reported scarcely any community listening with the school apparatus. Where attempts were made to bring parents to the program, early interest vanished as soon as the parents themselves obtained sets. In the country, however, the school radio set often became a gathering point for the neighborhood. Much of the success of this community listening was influenced by the relation of the school teacher to the people.

In small shut in villages the participation was always good, especially on the part of the poorer class. The radio therefore has become a new means of bringing parents and school together. Newspapers cannot be obtained, and so the radio is an important source of culture. The country people especially were glad to hear the radio programs and showed
great interest in political economy (Volks-wirt-schaftlich) and musical programs. The interest in reports, dialogs, and occasional talks by officials also was great. A growing interest on the part of the people in the radio was plainly marked.

In some places the villagers were invited by the teacher to come in on certain evenings; in other places they liked to get together Sunday for the radio programs. The report came from a certain small village that every Sunday forty or fifty persons gathered at the school to listen to the radio. It was the same in other places, so that one may say that the radio brings the school and the home into closer relationship.

In reports from twenty-three governmental departments the significance of radio for parent evenings, listening evenings, evening courses, singing groups, and other organized groups was made clear.

This survey by Prussian education authorities presents an admirable picture of the problems which Prussian schools have discovered in using school broadcasts. It illustrates the progress made in radio as an educational adjunct.

School Broadcasts in England have the support and cooperation of the strongest education leaders in the land. They have no desire to make broadcast lessons compulsory or

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1 *Education by Radio*, "Broadcasts to Schools in England", October, 1931.
to suggest that they can be used to replace personal instruction by competent teachers. But, after careful inquiry, they are convinced that broadcasting may be brought in to furnish forms of stimulus and first-hand information such as are beyond the resources of any school.

School broadcasts in England extend from September to June and are divided into three terms. The Autumn Term includes from September 21 to December 11, the Spring Term, January 18 to March 31, and the Summer Term, April 18 to June 17.

The material which follows is a brief outline of some of the subjects shown on the program of broadcasts. These descriptions cover only the work of the autumn term. It should, of course, be noted that these descriptions cover only school talks. There is also a council which arranges adult education broadcasts and presents them over the stations of the British Broadcasting Corporation.

THE WORLD HISTORY course covers Empires, Movements and Nations, and is given by Norman H. Baynes and Rhoda Power. The twelve lessons have the following titles: (1) Babylonia and Egypt, (2) A Report to Pharaoh, (3) Israel and Assyria, (4) Nineveh and Babylon, (5) Persia, (6) Salamis, (7) Greece, (8) A Day in the Amphitheatre at Athens, (9) Rome, (10) Hannibal, (11) The Roman Empire and the Triumph of Christianity, (12) Constantine. The odd numbered titles will consist of talks by Mr. Baynes, while the even numbered ones will be in the form of dramatizations by Miss Power.

THE STORIES FOR YOUNGER PUPILS are entitled Stories From Everywhere, and are for nine and ten-year-olds. The titles for the entire series are (1) The Seven Supperless Boys, (2) Turkle, (3) Why the Blackbird has a Yellow Bill, (4) Mrs. Racundramundradramundi, (5) The Four Friends and the Hunter, (6) The Yams,


THE MUSIC PERIOD is divided into two parts. In the first half hour is the junior course. This consists of (1) Lesson on the subject of the week, (2) Reading practice, (3) Short concert or playing of scholars' weekly tunes, (4) Song-singing. The senior course occupies the last half hour and consists of (1) Song-singing, (2) Lesson on the subject of the week, (3) Advanced Reading practice, (4) Short concert or playing of scholars' weekly tunes.


KING'S ENGLISH is the title of a course in speech training which will be given by A. Lloyd James. In general the purpose of this course is to help pupils "May be able to lay aside dialect and impose upon their own local speech that other which is known as standard English."

THE GEOGRAPHY LESSONS consist of travel talks on Life and Work in the British Isles. These talks to be given by various speakers were planned by James Fairgrieve and Ernest Young. The titles to be presented are: (1) Life in the Fens (2) A Trawler of the North Sea (3) Fruit and Hops (4) Market Gardening in Bedfordshire (5) The Chair Bodger of the Chilterns (6) The Black Country (7) The Potter and the Potteries (8) In and Around a Bradford Mill (9) The People Who Manufacture Cotton (10) Sheep Farming in the Lake District (11) Down a South Wales Coal Mine (12) Snowdon Slates.

THE FRIDAY AFTERNOON STORIES AND TALKS are designed to provide the pupil with something less formal than the ordinary school lesson. The stories will be interspersed with occasional talks on current events and will be given by Mr. Frank Roscoe and others.

In addition to the above, these additional subjects are covered in Broadcasts: French Readings, Scientific Tales, Debates for Older Pupils, English Literature Course, German Dialogs and Readings, Concert and Dramatic Readings.
CHAPTER EIGHT

SUMMARY

In the preceding pages "Radio in Modern Education" has been discussed from the following points of view:

Before the radio can be of most benefit to people they, as listeners, should have some training in the technique of listening. According to one study of the time used by people for reading, writing, listening, and talking, it was found that 45% of this time was spent in listening. Then for the radio to be of most value in Modern Education the preparation of the listener for the broadcast is of great importance. This preparation should make it possible for the listener to be critical enough to accept only that part of the broadcast which adds to his life, liberty and happiness.

The radio gives an opportunity to the rural people that nothing else can give. The rural child and adult get an insight into the affairs of the world that would not be gotten otherwise. The contact, which the radio affords with the other people of the world, gives the rural child or adult a better understanding of society. This will make the rural people feel that they are a part of society.

Every individual needs to be continually getting more information. This prevents a person from becoming set in
his thinking or doing. The radio gives the opportunity for continuous growth to the adults, even those in the most remote part of the country. The failure of an individual to broaden his vision by some method, will cause him to become stagnant and a useless part of society. The radio gives an opportunity to those who were not fortunate enough to get a liberal education during their youth.

Programs broadcast by schools make it possible for the community to know what is going on at school. Perhaps patrons can be made more interested in the school and school affairs by broadcasts from the school. Aside from the value of the radio in molding public sentiment, the pupils themselves are benefitted. The broadcasts afford an opportunity for the pupils to express their own ideas publicly. The student is given the valuable training needed in appearing before the public and carrying on an intelligent conversation. The programs as given by a school can create a greater interest in regular classroom work in that they present subjects in a different manner. School broadcasts can help prevent accidents, offer suggestions to make health conditions better, discuss the different vocations of life and their possibilities. Broadcasting by schools has been recognized as being of such importance that many of the colleges are giving instruction to teachers so that they will be better prepared to arrange programs for broadcasting. If a school should not have a teacher prepared to write a script for a broadcast, the Office of Education, in Washington, has a large number of ready
prepared programs for distribution.

The Public Schools of Cleveland, Ohio, are pioneers in the use of the radio and radio broadcasts in the Classroom. They have found it profitable enough that a short wave station has been installed for sending out a regular scheduled program to the schools of the city. For the broadcast to be of most benefit in the classroom, advance preparation should be made, then guided listening should result during the broadcast and afterwards follow up work should be done. This procedure is used in the schools at Cleveland.

The educators recognize the benefit of the radio to schools. They, of course, have their own ideas about what the value is and how the programs should be presented to be most effective. Dr. Walter Damrosch, who directs the "Music Appreciation Hour" over N. B. C. system, believes that the classroom teacher and the director of radio broadcasts must work hand in hand.

Educational broadcasting in other countries is being developed in about the same way as in the United States. Australia has two systems for broadcasting. One privately owned, handling commercially sponsored programs; the other government owned and operated. The English system is non-commercial. They have a group of teachers and others engaged in education to plan all education broadcasting. They arrange special broadcasts during the months when their schools are in session. Their school broadcasts are arranged for a definite time each week and the school can arrange their
program to fit in with the radio program. The use of the radio in Germany apparently is nearest like our own situation. They have broadcasts to schools to supplement their regular classroom instruction. They have radios in rural village schools for the use of the children and the adults of the community. The school and home is brought into closer relationship.
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World Wide Broadcasting Foundation, Station WIXAL, Boston, Massachusetts.

VITA

I was born in Berrien County, in the south central part of Georgia, on September 5, 1905. When I was four years of age we moved to a small town in Lowndes County; Hahira. After living there a year we moved back to the farm where I was born. We lived on the farm one year and moved back to Hahira and lived there one year and again moved back to our farm. That was the last of our moving.

During my last year in Hahira I started to school and when we moved back to the farm I continued going to a school in the country about two miles from home. The name of this school was Lois. This school was continued until about eight years ago, when, through consolidation with others, it was moved to the center of the district. After starting to Lois in the first grade, I continued my schooling there through the fifth grade.

I left the country school and started to school in Nashville, the county seat, in the sixth grade. This was done in order that a sister who was older than I could enter the eighth grade. The country school only had seven grades and a six months term.

After being in school a few months I was forced to drop out on account of an injury to one of my knees that kept me in bed several months. After getting up I did not start back to school until the next school year.

I continued in school in Nashville until I was graduated in May of 1924. The man who was Superintendent of the school was a Mercer graduate and I was induced to enter Mercer by him.

I entered Mercer in the fall of 1924. I had no idea of what college life was like and had never stayed away from home very much, therefore, I fared rather badly for several weeks. At the end of the winter quarter I had to drop out of school on account of an operation. I did not re-enter until the following fall. I stayed in school during the regular session then until I received my A. B. degree in June of 1928.

I started teaching school in Sandersville, Georgia, in the fall of 1928. I taught there two years. During my second year there I married a young lady who was working in Sandersville.

After leaving Sandersville we went to Cedartown, Georgia, in the northwestern part of the state. I taught in Cedartown only one year. My Father had died and my Mother was left alone, so my wife and I went back to my birthplace to live. I secured a place to teach in Cook County, the adjoining county to Berrien on the west. I started teaching in the Sparks-Adel High School in the fall of 1931 and continued there until May, 1936.
In January of 1936 I asked the school officials for a leave of absence for a month, in order that I might enter the race for County School Superintendent in my own county. They very graciously consented to my request.

I entered the race and was elected. I took over the duties of my new work on January 1, 1937.

After getting my A. B. degree from Mercer, I began work during the summer toward a Masters Degree. My new work found me with this work toward the degree not completed so I asked the County Board of Education if I might get off during the summer long enough to go to Mercer twelve weeks. They agreed and so I am here trying to complete my work toward the Masters Degree.