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COMMISSIONER

THE ART OF
TEACHING BY RADIO

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR

OFFICE OF EDUCATION,

WASHINGTON, D.C., JUNE 1933.

SIR: Radio is a new factor in education. Whether it will play a large part in the school either by supplementing work now done only in class or by replacing some of the formal instruction, only time and experience will tell us. The Office of Education, however, is endeavoring to keep track of what is going on. It is studying broadcasting especially as it affects subjects which are or might be in the school. In this connection improvements in techniques are very important. Especially is it important to enlist and hold the adult. For adult education cannot be carried on well in the average school, but it could be done in the adult's home if we could find a method that is so appealing that he cannot get away from it.

This manuscript analyzes some of the forms which broadcasting has taken and gives some attention to the preparation and delivery of these forms and contains a suggestive bibliography. It is suggestive enough to warrant its publication as a bulletin of the Office of Education.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

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★ I ★

INTRODUCTION

*for opinion in good men
is but knowledge in the making.*

JOHN MILTON

RADIO is a new force which science has placed in the hands of civilization. Its potential uses are so numerous and varied that it has captivated the imagination of the entire civilized world. As a means of diffusing entertainment and information over wide areas, broadcasting has no peer. Steadily it is breaking down the barriers of isolation, broadening the horizons, and enriching the lives of countless millions of people. Within a dozen years radio broadcasting has become an important social factor in nearly every country in the world. Even the civilization of the future may depend upon the control and direction of this power.

The Purpose of the Study

Considered as an educational force, radio is not a separate entity. It is simply a conveyor of sound. It is just as frail and human as the men and women who direct it. It is just as powerful and ingenious as the men and women who master it. Properly used, the radio may become an invaluable aid in education. If so, educational broadcasters must learn how to broadcast. They must master the art of teaching by radio.

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THE ART OF TEACHING BY RADIO

The mastery of the technique of broadcasting is a prerequisite in skillful teaching by radio. It is different from the technique of the stage or the screen. It is different from the platform or the classroom. It is the anxious task of the present generation to determine what these differences are. For if the radio is to be harnessed and put to work to help bear the ever-increasing burdens of education, there must be a skillful instructional performance before the microphone.

The principal purpose of this bulletin is to make available to the educational profession what appear to be the best practices in teaching by radio. The study should also be of service to professional broadcasters and occasional speakers. It is hoped that the prospective broadcaster will find a number of practical suggestions to assist him in the preparation and presentation of broadcasts. If it does nothing more than to create a widespread interest in the problems involved in teaching by radio, the result will justify the effort involved in making this study.

Limitations of the Study

Since the material for the study consists principally of the consensus of well-informed opinion on the technique of effective teaching by radio, it has the limitations and advantages of such a study. Years of research and experimentation would be needed to solve the numerous educational and broadcasting problems involved in effective teaching by radio. The scope of the study is limited to a consideration of the problems of the educational broadcaster. No attempt has been made to treat the problems of the listener except to point out the aid the broadcaster is expected to give.

The rules for effective broadcasting contained in the bulletin are intended to be used simply as suggestions. After all, the speaker must make the most of his own personality. Ruth Bryan Owen points out that:

The speaker's own sincere conviction on a matter vital to him, expressed in his own words, colored by his own individuality, will be more telling to his hearers than his repetition of others' words, however eloquent they may be. [68].*

* Figures in brackets refer to source references in the bibliography at the end of the bulletin.

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After the speaker has mastered the essentials in broadcasting, he should be able practically to forget them as he focuses his thought upon the message he is giving.

Orrin E. Dunlap, Jr., radio editor of the *New York Times*, says that radio personality is an inborn quality capable of holding an invisible audience. He adds that in order to get across on the air there must be a dynamic concentration—an intense absorption in what one is broadcasting. And at the same time there must be a calm control that overrides the inevitable disturbances in a radio studio (31, p. 138).

Study and training may be very effective in enabling broadcasters to organize their subject matter, master microphone technique, and develop self-assurance; but no amount of training can take the place of natural ability which enables the broadcaster to project his personality over the air. It is an intangible, innate essential.

The value of the present study is based upon the important influence of the broadcasting movement, its potential educational applications, and the need for a mastery of the technique of teaching by radio, which, after all, is the basic problem involved in utilizing radio in education. It is intended to serve broadcasters who want advice and guidance in improving their teaching efficiency over the air.

Sources and Procedure

The data included in this study consist of facts and opinions on the technique of broadcasting and were secured from the following sources:

Published accounts found in magazine articles, books, conference and committee reports, and special booklets dealing with the subject.

Typed and mimeographed instructions and suggestions to broadcasters issued by various broadcasting stations and broadcasting ventures.

Experience in preparing, editing, and evaluating educational radio manuscripts.

Interviews with various educational broadcasting leaders.

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Data gathered from a questionnaire sent to 604 radio broadcasting stations by the Federal Office of Education. This was the principal source of material.

A card system for assembling the data was used, and the cards were sorted and resorted until a tentative outline was developed. The tentative outline was submitted to a committee of broadcasting experts and a group of educational specialists for their additions and criticisms. The outline used in the study resulted.

In documenting the bulletins, the references used are annotated and arranged alphabetically as a bibliography at the end of the bulletin. Each reference is assigned a number representing its position in the list. In the text, references to the sources of authority are indicated by referring to these numbers. Since reference number 86, which represents the data gathered from a questionnaire sent to all broadcasting stations, would occur so often throughout the text, citations to this source have been omitted. The reader should assume that material not documented came from this principal reference, or possibly from the experience of the writer.

It is evident that all the data thus assembled could not be used in the study. Some points contradicted others. The items were not of equal value. Therefore, it became necessary to set up a basis for evaluating the different items. This was done as follows:

The Federal Office of Education invited the Association of College and University Stations and the National Association of Broadcasters to assist with the study. Several members of the former organization prepared splendid suggestions. A special committee of the latter organization rendered invaluable service throughout the study.

Items not in harmony with the consensus of opinion were eliminated.

The committee of broadcasting experts next were asked to evaluate the items in terms of best broadcasting practices.

Following this, a tentative form of the report was prepared and submitted to several specialists in the Office of Education

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and experienced educational broadcasters outside for their criticism.

The Plan of the Study

The final report which consists principally of the consensus of opinion of broadcasters and educators, as interpreted by the writer, is divided into five chapters. Chapter I briefly considers the purpose, procedure, and plan of the study. The second chapter treats the various forms of radio programs and the special consideration in each. The third chapter deals with certain points that should be considered in the preparation of all educational broadcasts. Publicity and supplementary aids for listeners are included in the fourth chapter; and some points that should be considered in the presentation of all educational broadcasts are treated in the fifth chapter.

★ II ★

POSSIBLE FORMS OF
BROADCASTS

*You shall hear their lightest tone
Stealing through your walls of stone
Till your loneliest valleys hear
The far cathedral's whispered prayer.*

ALFRED NOYES

THE nature of the advance preparation needed by the broadcaster will depend somewhat upon the form in which the broadcast will be presented. Will it be a lecture, a radio debate, or a discussion? Will it be a radio dramatization or a musical broadcast? The form of presentation will depend upon three factors, namely: The nature of the subject, the broadcast talent, and the listeners for whom it is intended.

Radio broadcasts may be roughly classified under seven general headings: [i] talks, [ii] directed activities, [iii] actuality broadcasts, [iv] radio conversation, [v] debates, [vi] broadcast music, and [vii] radio plays. This chapter will be given to a discussion of these various types of radio broadcasts.

Radio Talks

As used here, the expression *radio talks* is intended to include features broadcast in the form of lectures, addresses, and stories; but it is not intended to include forms of radio

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presentation commonly known as *directed activities* and *eye-witness accounts*, which are sometimes classified under the more inclusive term of *reportage* or *actuality broadcasts*. These last-mentioned forms will be discussed later.

Beginning with the traditional forms, radio talks are gradually evolving methods of their own [55, p. 192]. Even yet, so much is unknown, there is such a close interlocking of the subject matter, the personality of the speaker, and the manner of delivery that it is impossible to set up any one best method of organizing and standardizing radio talks. The crucial test which is used at the present time is the amount of interest the talk will arouse and sustain. Listeners may manifest intense interest in a news broadcast or an ordinary discussion of some major public issue simply because the broadcast is timely.

While there is no common agreement among broadcasting authorities as to the general characteristics of a successful radio talk, it appears that the broadcaster should have a magnetic personality, his attitude should be friendly and courteous, the style of the manuscript should be suited to the subject being presented, and, finally, only a few points should be made in one talk.

The attitude of the speaker should be that of a guest in the home, and he should conduct himself accordingly. He should be liberal and open-minded, minimizing generalizations, preachment, and self-aggrandizement. While the listener must be made to understand that the speaker is an authority on his subject, the tone of the manuscript should be friendly and ingratiating. Without attempting to be condescending or dictatorial, the speaker should win the appreciation of the listener by his skillful presentation of the subject and by his friendly manner. The use of the words *we*, *you*, and *friends* frequently tends to make his message direct and personal.

The narrative or story is especially fitted to the younger pupils. This is true whether the story tells about fictitious or real events, or whether it recounts anecdotes from the lives of celebrated men [59]. Stories for primary pupils should be short, seldom more than 10 minutes in length.

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They should present situations that will stimulate interest and sustain the attention while the young listener tries to imagine what the outcome will be. Side references to situations within the experiences of the children are very effective. Stories from life are suitable also to illustrate serious talks for adults. Dean Gleason Archer's law lectures, for example, are shot through and through with human-interest illustrations.

There is considerable variation of opinion as to the relation of effective radio speaking to effective public speaking. A British lecturer says that if the speaker is a live lecturer and knows his public he needs to learn very little from the microphone [54, p. 909]. Borden states that more of the principles of effective platform speaking carry over as principles of effective radio speaking [51]. Lawton points out that the platform speaker who has depended a great deal on bombast will not be very effective over the air [51, p. 264-265]. As quoted by Lawton, Professor Morecraft considers radio oratory as being much different from platform oratory for—

Ill-built sentences, expressing weak ideas, cannot succeed without the aid of forensic gesticulation. Flowery nonsense and rhetorical excursions of the soapbox orator are probably a thing of the past if a microphone is being used. The radio listener, curled comfortably in his favorite chair, is likely to criticize the vituperations of the vote pleader very seriously. Woe be to the candidate who depends for public favor on the wild rantings and tearing of the hair. [51, p. 265].

Radio audiences will not tolerate floundering, stuttering, groping for words, long pauses, or the use of "er-er-er," or "a-a-ah."

As a rule, radio talks should not be more than 15 minutes in length. Therefore, the speaker should get to the main point quickly and not be overambitious to cover the subject. He is usually expected to have a thorough knowledge of the subject he is to discuss. This frequently requires extensive experience and research. The talk should be a straightforward expression of the speaker's sincere convictions on a subject. Even silver-tongued oratory by a speaker who lacks conviction will seldom carry as much weight in convincing listeners.

Broadcasters point out that the scholar, with a vast amount of information, may be an absolute failure as a

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broadcaster because of the lack of showmanship. Lambert is of the opinion that the university classroom lecturer may be too graceless and pedantic; the university extension lecturer with his platform manner may sound "stagey"; the tutorial class tutor may lack the power to react to a sufficiently varied range of intellectual needs. He thinks that there is not a single one of these styles of lecturing which is wholly suitable to broadcasting. Every one of these types requires, under normal circumstances, considerable guidance and rehearsal in the production of effective popular broadcasts [57, p. 800].

Directed Activities

The expression *directed activities* as used here names the form of radio presentation in which the listener is instructed to perform a definite activity during the broadcast. The most common types of directed activities taught over the air are setting-up exercises, story plays and rhythmic. The writing down of an address or recipe, or the making of a memorandum at the request of the broadcaster is a directed activity. Thus it will be seen that this form of radio presentation is frequently combined with other forms such as talks, discussions, and even singing when the listeners are expected to sing with the broadcaster.

Directed activities are considered as a separate form of radio presentation because they need rather specialized preparation, and because they are used extensively in teaching by radio. Some educators have questioned the possibility of teaching by radio. They say there is no learning without activity on the part of the learner and in teaching by radio the pupils are not active. Any person who has visited a class being taught by a skillful radio instructor knows the pupils are far from passive. With the aid of lesson material, and the assistance of their class teacher, the pupils carry out as wide a variety of activities for the teacher of the air as they do for their regular teacher.

The broadcaster who has developed the ability to stimulate and direct the emotional, mental, and physical activities of the listeners has gone a long way toward mastering the highly specialized art of teaching by radio.

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In the preparation of the broadcast the radio instructor must be able to visualize the listeners and not expect them to use equipment that they do not have or do anything that they cannot do at that moment. He must be able to arouse the interest of the listeners at the outset of the projected activity and sustain it throughout the broadcast. Careful preparation and thorough rehearsing will be absolutely necessary.

As far as possible, the material should be developed around the listeners rather than forcing the listeners to adapt themselves to the material. If possible, the manuscript should be prepared far enough in advance so that teachers and other group leaders can secure copies of it before it is put on the air. The broadcast should be limited to explicit activities that can easily be described over the air.

The main directions should be carefully thought out and expressed in the fewest words possible to get the desired results. The more difficult directions should be repeated slowly. Interesting or humorous side remarks interspersed with the directions relieve the effort of listening and give the listeners time to think over the directions.

The speed of movements and exact timing of activities must be worked out in advance to insure smoothness in presentation and avoid confusion of the listeners. It is usually necessary for the broadcaster to have a group typical of the listeners carry out the activities under his personal direction in order to perfect his instructions and time exactly the speed of the movements. If an exact counterpart is produced before the microphone, with the liberal use of music and subdued sound effects, the proper atmospheric effect can be created. An occasional interruption of the broadcaster with a pertinent question will enable him to emphasize important directions that might be misunderstood.

Actuality Broadcasts

The expression *actuality programs* is borrowed from the British to describe the broadcasting of important public events, either at the time of their occurrence or soon afterwards, and the running commentaries along with natural sound effects of interesting settings. Beginning with eye-

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witness accounts of sports events, parades, and other public occasions, the development of improved microphones, remote-control equipment, and sound-recording systems has caused this form of radio presentation to be expanded until now the wide variety of adaptations related to eye-witness accounts makes it desirable to secure a more inclusive term than any in general use, thus the expression *actuality broadcasts*. The Germans refer to actuality broadcasts as *reportages*. Among the adaptations are descriptions of scenes from airplanes, visits to factories, stories of personal experiences, and, through characterizations or sound recording, the reproductions of important national occasions, and other actualities.

The following is an example of an actuality broadcast over the Columbia Broadcasting System, February 5, 1932:

A N N O U N C E R

Tonight the editors of Time raise the curtain again on a new way of reporting the news—the reenactment of memorable scenes from the news of the week—from the March of Time.

Thirteen years ago the League of Nations Covenant solemnly promised a reduction of armament in the name of peace—a promise made to the 8,000,000 young men slaughtered in the World War. This week at Geneva, to the accompaniment of ringing church bells, in New York, London, Paris, the long-awaited world disarmament conference begins. At this moment the 232 men and women representing 60 nations of innumerable traditions, cultures, and creeds face the Presidential Tribunal. Chairman Arthur Henderson of Great Britain opens the conference:

M R. H E N D E R S O N

This is an historic occasion. Assembled here are the spokesmen of one billion seven hundred million people. We must have no illusions as to the problems which confront us. We must be determined to overcome them in our common hope for the attainment of universal disarmament. We must insure the continuity of the world. Modern history incontestably disproves the belief that the safety of nations lies in the strength of their armaments. A sense of insecurity merely leads to an increase of armaments, increase in armaments only aggravates the sense of insecurity. And unless this vicious circle can be broken, the process goes inevitably forward. The burdened nations find no release from their mutual distress except in open conflict.

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Need I remind the conference of the financial burden of armaments? During the last five years 41 countries have spent the immense sum of four billion dollars a year for military purposes. The world wants disarmament. The world needs disarmament. And the future of our developing civilization depends upon our success today.

[Bells up—Music]

The educational possibilities of actuality broadcasts are almost unlimited. Stimulated by carefully worded pictures, graphic descriptions, actual sounds, the ear-witness' imagination enables him really to experience the situation. Thus the cultural values of guided travel, the instructive benefits of history-making news of the day, the stimulating guidance of great personalities become available even to the underprivileged peoples of remote regions.

The advance preparation for running commentary broadcasts includes the selection of the speakers, the setting up of proper transmitting equipment, and the advance preparation of subject matter that may be useful in the broadcast. The principal broadcaster or narrator should be very carefully selected, because the success of the broadcast depends almost entirely upon his ability.

One writer says the narrator should be a clear, concise thinker with a well-developed news sense and a ready command of vivid descriptive language. Another says he should be able to observe keenly and to narrate interestingly and accurately what he observes. A third writer points out that the narrator should possess a thorough knowledge of the situation, a virile personality, and the ability to transport the listener to the scene by means of a vivid understandable word picture.

Broadcasts originating outside the studios make it necessary to install proper physical equipment in suitable positions. In running commentaries, the microphones should be placed in positions where the broadcasters can easily see the situations being described. Transmitters on trucks are sometimes used to make running commentaries. Sometimes several microphones should be used to put the event on the air. If so, they should be connected with each other in an inner communication line. The positions selected should be such

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that the proper background sound effects can be heard without being too loud. Of course, the microphones should be protected from storms or damage by spectators.

Not only running commentaries but also practically all forms of actuality broadcasts require considerable advance preparation of subject matter. The principal broadcaster should anticipate the scene and write out narrative descriptions to facilitate the advance description of details needed to create the proper atmospheric effect and aid in the running commentaries. Interesting sidelights on the location or participants will be welcomed by the radio audience to fill the lulls in action that almost invariably occur during the broadcast. As a rule not more than five seconds should be permitted to lapse without a sound going on the air.

Beginning with a brief word picture of the location and principal characters as they would be seen if the listener were present, the broadcaster should proceed naturally, giving a running-fire description of the activity as it takes place. The tempo and the pitch of the voice should be suited to the event. The listener relies on the man at the microphone to be on the lookout for human interest happenings and to translate them so that he can visualize and feel the situation whether it be the thrill of the touchdown, the dignity of the parade, or the solemnity of the dedication. The dramatic possibilities of each incident should be stressed.

In describing exciting events the rate of delivery should be faster, the voice pitched higher, and the style more vigorous than usual. Short crisp sentences and appropriate interruptions help. Enthusiasm should be projected, but the speaker should neither become so much excited that it interferes with clear coherent delivery nor try to keep the listeners at a feverish pitch of excitement throughout the broadcast.

Experienced broadcasters point out that the program should not become so involved that it tends to confuse the listener. In order to avoid this difficulty, the main points of action and interest should be brought out clearly and be well supported by live detail. In describing a football game, for instance, when an unusual play has been made,

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state briefly the outline of the play and keep the course of the ball in the minds of the listeners. Then when the play is over and the enthusiasm starts to subside, go back and give pertinent details of the play, telling exactly what happened and the parts played by the various participants. Scores, participants, and the occasion of the broadcast should be repeated at appropriate intervals.

The reports indicate that the broadcaster should tell the truth but avoid expressing personal prejudices and wisecracks, and stressing situations containing a great deal of horror. While it is usually appropriate to use the first person in speaking, it should be done without any appearance of ego, or otherwise putting the broadcaster between the event and the listener. If more than one narrator is used, one of them should be designated as chief. The chief should take the microphone any time he sees fit. Various voices should be used and the interludes filled with music or variety.

In instances where events are to be broadcast as actualities soon after they transpire, sound-recording systems become valuable aids in making the events real to the listeners. Characterizations also add to the reality of the event. The Blattnerphone used extensively in Germany and Great Britain to record outside events to be broadcast later is an example of the sound-recording system. "The March of Time" reproductions of the news of the week over the Columbia Broadcasting System illustrate the use of characterization. In case a person not accustomed to broadcasting is called upon to tell of some unusual experience that has attracted public attention, the interview method is usually most satisfactory. Generally this puts the individual at ease and enables him to picture the situation.

Radio Conversation

A wide variety of subjects lend themselves to this form of radio presentation. Current topics of genuine public interest and typical life problems and experiences can be treated in such a way as to stimulate analytical and creative thinking and be of real service to the listeners. Through

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judicious use of comedy, pathos, or tragedy, the feature may have high entertainment value and still carry a subtle lesson as a by-product of the experiences reproduced in the dialog or discussion. Inferences drawn by the listener as a result of his own reflection may carry more weight in his life decisions than the careful analytical study of human conduct would carry.

There are several forms of radio conversation. In the one-man discussion, the speaker either impersonates two or more characters, changing his voice to suit the different roles, or representing his audience by asking himself indirect questions. To illustrate the latter form, the speaker may say, "Perhaps you would like to know . . .," and so forth. "Very well, I will tell you . . .," and so forth. In the dialog method one speaker may represent the teacher and another the pupil, or both speakers may discuss the subject as of about equal ability [38]. The interview is a popular form of the dialog. In the three-way discussion two speakers of about equal ability discuss a subject and a third person, representing the pupils, interrupts with questions. This method is meeting with considerable favor abroad, especially in Germany, where it has been carefully developed and extensively used in giving instruction over the air [47, 58]. In a recent variation of the three-way discussion two speakers of about equal ability discuss a subject and occasionally appeal to a third person who, as an eminent authority, settles points of difference.

A fourth form of the radio discussion is the teacher-class form in which the teacher has a class actually present in the studio and teaches it before the microphone. Sir Walford Davies attracted a great deal of attention by using this form in 1924. Although at first glance this method might appear to be ideal, it has not been very satisfactory. In the first place, it is difficult to arrange to have a class present in the studio. Next, if rehearsals are held, the performance becomes unnatural. If not, too much time is lost. Besides these difficulties, the limitations of radio necessitate the use of different procedure in teaching an invisible class with the assistance of their regular teacher than the broadcasting instructor would use in teaching the class before him.

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In the one-man discussion the speaker should cause the listener to feel as if the speaker were in the listener's home and talking things over with him. In most other forms of discussion the listener should be made to feel that he is eavesdropping on an informal and rather confidential conversation in which the speakers are not aware of a listening audience. In order to accomplish this effect, the broadcast must appear to be natural and spontaneous with unfinished statements, typical interruptions, and varied speed just as would be expected in a normal impromptu conversation.

The interview form of the dialog is simple and usually effective if the skilled interviewer is questioning a prominent person, or a person who has attracted widespread public attention for some act of heroism or other unusual accomplishment. The interview dialog in which the questions or the delivery seem stilted, as well as straw-man questions to be torn down by the person being interviewed, will be ridiculous and ineffective. Any suggestion that the dialog has been written out in advance or is being read is bad. Utmost naturalness should be the aim even though it requires rare art to achieve it.

In practically every instance it appears that the material should be written out and rehearsed. The extemporaneous type is seldom successful. There is considerable division of opinion on the question of whether or not the characters should be permitted to take liberties with the text during the broadcast. While the appearance of absolute freedom of discussion is highly desirable, the best practice seems to be to build these apparent liberties into the text. Alertness of the characters during rehearsal will usually bring out the "patter" that should be built into the script.

The general characteristics of radio discussions vary in accordance with the subject matter being discussed and the purposes of the broadcasts. While most writers say the style should be informal and chatty, there are occasions and subjects when a very formal presentation may be more appropriate. Notwithstanding these variations, there are some common points that should usually be observed in the preparation of radio discussions.

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The lines for the different characters should be written in different styles. All of the contractions that are common in the spoken language should be employed without perpetuating the common errors. Charm, originality, and clear crystallization of ideas stimulate attentive listening. The discussion should be arranged so as to consider basic fundamental points to the exclusion of minor details. Each point discussed should be made clear and complete before passing on to the next one. The trend of thought should unfold naturally.

The consensus of opinion indicates that the manuscript should include words to identify properly each character so that the listener visualizes him at once when he speaks. As the various characters address one another, the different pitch of their voices and the frequent repetition of their names prevent confusion in the minds of the unseen audience. Comments of the characters, appropriate musical settings, and sound effects are used to indicate the setting, movements, and lapse of time.

As a rule the discussion should not be monopolized by one character but should be rather evenly balanced. If it is necessary to have long speeches by one person, break them up with short questions or remarks, such as, "Did you say 7,659?" "Yes, go on," or "I didn't know that."

There is a very definite tendency in the evolution of educational talks for broadcasting purposes to get away from the formal lecture method of presentation and to substitute discussions, directed activities, eye-witness accounts, and debates [8, 47]. There seem to be three reasons for this shift in method. First, since the listener must concentrate on sound and sound alone, the conversational style and different voices tend to relieve the strain of continual listening to the voice of a single broadcaster [12]. Second, classroom teaching conditions can be more nearly duplicated in the conversational presentation of material, as this method not only assists the pupils in following the line of thought but also assists the teacher at the microphone in making his points clear. Third, a more personal animated form of expression will usually result when speakers talk to each other before the microphone [28, 38, 47, 58].

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Radio Debates

Very satisfactory progress is being made in the use of the discussion method in broadcasting, but comparatively little advance has been made in the use of debates [28, p. 219]. Intercollege debates over the air have attracted considerable interest at the time they were presented, but the movement has not grown very rapidly. Some broadcasters are of the opinion that radio debates will never be effective. An examination of the characteristics of debates will bring out some of the reasons why they have never become more popular over the air.

In the first place great care must be exercised in selecting the subject and conducting the debate over the air so as not to offend any group of listeners. The subject must be of general interest to the audience, whether national or local. It must be controversial. The audience, being more critical at home than in the lecture hall, is likely to take offense at broadcast statements that are contrary to their convictions. Even though the station management exercises the greatest care to maintain its neutrality, the listener may think the station is taking sides.

In the second place debates afford the speakers the opportunity to bring out strong emotions, which are hard to handle by radio. Heated arguments, rabid controversial statements, and dogmatic utterances such as "I am now going to prove to you," sound out of place when broadcast. Outrageous attacks, sarcastic thrusts, and vehement ridicule are decidedly inappropriate in the quiet atmosphere of the home. The microphone has not been invented to pick up shouting and table thumping so much used in ordinary debating.

In the third place the length of time needed to prove the points and the lapse of time after a point is made before it is answered make it difficult for the listener to retain and evaluate the various ideas. Long, involved statements logically organized and delivered in a convincing oratorical style may be pleasing and effective in the assembly hall but not over the air [64, 69].

Best practice at the present time indicates that if a debate is broadcast the station must maintain its neutrality. The

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subject should be carefully selected, clearly stated, and fully covered by competent speakers. The question should be thoroughly analyzed and irrelevant matter excluded by common agreement. The debate should be completed in one program.

The chairman, or master of ceremonies, has the responsibility of giving the listeners a glimpse of the situation, stating the premises clearly, introducing the speakers, making necessary explanations, and summarizing the points. The voices of the speakers should be sufficiently different to be easily distinguishable. The length of time given each speaker should be short—seldom more than 10 minutes—with about 4 minutes for rebuttals. The rebuttals may be impromptu, but should be accurately timed. The audience may be invited to judge the debate by mailing in their votes.

In the preparation of the debate great care is necessary to insure clear, concise, coherent reasoning. The points should be easily grasped and supported with authentic proof and ample illustrations woven into logical arguments and kept free from racial, religious, or political prejudice. The style of presentation should be diversified and colorful.

The same adverse criticism that applies to the lecture method of broadcasting also applies to the debate, and probably will continue to do so until the debate is broken up into an argument in which there is a point-by-point presentation and less formality. In a point-by-point debate the negative speaker immediately answers a point when it is made by the affirmative. Thus the debate really becomes a controversial discussion. As such it will probably motivate the hearers to further learning activity on the subject which, after all, would be a worthy objective in any debate.

During the winter of 1931-32 the League of Women Voters presented a series of informal debates in dealing with public questions of a controversial nature. The chairman would ask the question, which would be answered immediately by a person representing the affirmative. A person taking the negative viewpoint would then answer the question. The final decision would be left to the radio audience. The British Broadcasting Corporation used a slightly different

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procedure in its unfinished debates for school audiences. The affirmative speaker presents his complete argument. The negative speaker then answers him. The final decision is left to the listeners [59]. Thus it will be seen that many variations of the debate may be used in broadcasting controversial subjects.

Broadcast Music

The most extensively used and the most popular form of radio broadcasting is music. Howard Millholland, of the National Broadcasting Co., is of the opinion that the popularity of music is due to its appeal to the sensory faculties of hearing and motor or rhythmic activity; the memory and imagination through ballads, songs, operas, etc.; and the emotions, engaging the feelings between all extremes from the trivial to the sublime, from grief to joy. Music, since it depends so much on auditory impressions, suffers less than any other form of expression when it is broadcast. Music is the universal language which is understood by everyone. Radio is playing an important part in its dissemination. John Erskine says that the radio is doing more to raise the American public's appreciation of music than all other agencies combined [47].

There are many musical tastes to appeal to and all are worthy of attention. The latest song hits and popular tunes attract a large audience. They should be scrutinized carefully, however, for suggestiveness before they are broadcast. Many of them are soon worn out. One radio program director says, "Avoid riding new popular tunes to death. They are short-winded brutes." Another program director states that "It is an appalling fact that despite the vast amount of musical entertainment over the air and the great number of possible selections comparatively few compositions by a limited number of composers are ever played or sung."

While a station may feature male quartets, Hawaiian selections, western songs, or any other form of musical expression, at different hours different types of musical programs should be built to appeal to different audiences and different moods. For example, for a quiet or pensive mood, preference

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should be given to the string and wind instruments over the brass instruments and the saxophones. Care should be given to the harmonious choice of selections and their sequence of arrangement to insure both variety and continuity. Orchestral selections should be broken up with vocal numbers.

The musical programs of too many stations are based upon the belief that everyone wants the same sort of music. Variety is essential. In order to have variety the station program can be broken up into 15-minute blocks and different types of music presented in different blocks. Monotony results from too much repetition of the same or similar numbers. That must be avoided.

The following example of a well-planned broadcast music lesson was the first concert of Series A, presented by Walter Damrosch in the Music Appreciation Hour over stations WEAJ and WJZ, New York, of the National Broadcasting Co., on Friday, October 9, 1931, at 11 a.m.

ANNOUNCER

Good morning, young people. This is the first concert in Series A of the NBC Music Appreciation Hour. These programs have been specially arranged for you by Walter Damrosch, who conducts the National Orchestra. It gives me great pleasure to introduce Mr. George H. Gartlan, director of music in the public schools of greater New York, and a leader in public-school music affairs in our country. Mr. Gartlan.

MR. GARTLAN

To the children of my own New York—to all others listening in all over the whole country—this inaugural statement today starts you on a great adventure with Walter Damrosch. He is going to introduce you to the members of his musical family, and you are going to take part with him in many concerts of beautiful music, presented only as Walter Damrosch and his orchestra can present it. In your name I thank him and the National Broadcasting Co., who makes this series possible. I assure them that the music teachers of the country and you their pupils are looking forward to each Friday morning with great anticipation and eagerness. Dr. Damrosch, we are all ears, ready to listen.

MR. DAMROSCH

Good morning, my dear children. Here we are again together. I can't see you, and you can't see me—but you can hear me, as you can

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hear the orchestra that's going to play music for you this morning. Thanks to this wonderful invention of the radio there will be many, many millions of boys and girls like yourselves, all over this country, in every State of the Union, listening to the music that we are going to give you.

I call my orchestra my musical family, because here they are, seated around me, holding their instruments in their hands, waiting for me to give them the signal to begin. They are seated around me just as you sit around the table in your own home, eating your breakfast. There is father, mother, and your little brothers and sisters, and perhaps an aunt, and as you eat your breakfast, some of you may begin talking about something and your little brother joins in. And he says, "No, that isn't so, I saw that robin on the tree behind the barn." "No, I saw it on the tree outside of the house." And you get talking so wildly with each other that your father looks up from his paper and says, "Children, stop talking. You disturb my reading when you all talk at once like that." Now, my family—my musical family—can all talk together at the same time and not create a disturbance. On the contrary, the more they play together, if they play nice music together, the more pleasant it is. And while you have father and mother, and brothers and sisters in your family, I've got in my family here violins and violas, and violoncellos, and double basses, and flutes, and oboes, and clarinets, and trumpets, and trombones, and all kinds of instruments that are called percussion instruments, where you produce noises or sounds with a stick on a skin stretched over what looks like a copper kettle—oh, the strangest looking instruments, and yet they all make music together. And they can all talk at the same time. When I say they can talk, what language can they talk? Can they talk English? No. Can they talk German? No. Can they talk Italian? No. But they can talk music; and what is music? It's a language. But a language of what? A language of our feelings. For music can express when we feel happy. It can express when we feel sad. It can express our love for our country—patriotism. It can express sorrow, if we have lost someone dear to us. So you see what an important part music—good music—can play in our lives. Because whenever it expresses that which is in us, it expresses it beautifully—in beautiful tunes, in lovely harmonies; and gradually, little by little, you will understand more and more of this language of music; so that when people ask you what language can you speak, you will say, "Well, I can speak English, and my father and mother used to speak German, or Italian, and I can speak a little of that, and I can speak the language of music."

The orchestra is now going to play with me a march—a military march, written by the great German composer, Franz Schubert. And as you listen to this march you will hear it coming from far off, very faintly, as if a regiment of soldiers were coming on parade, nearer and nearer, and finally you see them with their rifles on their shoulders,

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and their flags flying. Then comes the general on horseback, with his horse curvetting around, and behind him his colonels and his adjutants and all the other officers, and so the march will go on from glory to glory. We will now play you this military march of Schubert's.

[*Military March in D*, by SCHUBERT, is played]

ANNOUNCER

This is the NBC Music Appreciation Hour. WJZ, New York. Mr. Damrosch continues.

MR. DAMROSCH

I am gradually going to introduce to you the various members of my musical family just as you would say, Mr. Damrosch, this is my father. Mr. Damrosch, this my aunt, or this is my younger brother Jim, and this is Sarah. So I am going to tell you all about the various members of the musical family, what instruments they play, and let you listen to them so that you can tell a violin from a double bass and so forth and so on.

Our next number is going to be a spinning song. Now, you know, your great-grandmother used to spin with a spinning wheel, which she made to move with her feet while she spun the flax. Today all that is done in great big factories by machinery, and we have sewing machines at home; but in those days they had a spinning wheel which made a nice little whir-r-r, as your great-grandmother used to spin the flax. Instead of the whir-r-r, this rumbling sound is played in the accompaniment by the first violins and the melody is played by the second violins, pizzicato. Now we will play for you the jolly little Spinning Song written by Mendelssohn.

[*Spinning Song* by MENDELSSOHN is played]

ANNOUNCER

You have just heard the first concert in Series A of the NBC Music Appreciation Hour, conducted by Walter Damrosch. The next concert in this particular series will be broadcast 2 weeks from today, on Friday morning, October 23, at 11 o'clock eastern standard time.

As illustrated by the NBC Music Appreciation Hour, suitable continuity and carefully worded explanations and interpretations have an important part to play in broadcast musical instruction. If explanatory comment is used, it should be prepared by someone familiar with the music and its composer, or by one who knows where to find authentic information about them. Such comments should not be

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improvised by announcers or prepared by continuity writers who know very little about music. The tone of the manuscript should conform to the standard of the music being studied. Different types of music require different types of continuity. Besides the bare announcement of the author, title, and setting, little historical sketches concerning the author, incidents surrounding the composition of the selection, etc., are appropriate. When used for instructional purposes, it will not be amiss to point out some of the characteristics of the composition and direct the students to what to listen for. The continuity should be brief.

The following example of a Standard symphony hour will serve to illustrate the place of continuity in a musical broadcast.

[Trumpet Fanfare No. 1]

A N N O U N C E R

The two hundred and twenty-seventh Standard Symphony Hour.

[Extract from the *Prelude to Act III* of Lohengrin is played]

A N N O U N C E R

We have pleasure in presenting the Los Angeles Philharmonic Orchestra and its conductor, Dr. Artur Rodzinski. This orchestra and the San Francisco Symphony Orchestra have been engaged exclusively for broadcasting alternately, week by week, under the sponsorship of the Standard Oil Co. of California.

We begin with the vivid *Carnival Romaine*, or Roman Carnival, by Hector Berlioz, a picturesque number which is based on a vigorous Italian dance, the *Saltarello*:

[*Carnival Romaine* by BERLIOZ is played]

A N N O U N C E R

There is an ancient tradition in many European countries that on All Halloween the dead return from their graves to dance till cockcrow. On a poem of this nature, Saint-Saëns based his *Danse Macabre*, or Dance of the Dead, with which we follow the *Carnival Romaine* by Berlioz. The opening notes tell how "Death the Fiddler" hammers the gravestones to summon the dead and tunes his instrument, which has a flat E string.

[*Danse Macabre* by SAINT-SAËNS is played]

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ANNOUNCER

The Carnival Romaine by Berlioz and the Danse Macabre by Saint-Saëns, the two works just played by the Los Angeles Philharmonic Orchestra under the direction of Dr. Artur Rodzinski, were discussed this morning during the elementary and advanced lessons of the Standard School Broadcast. Both the Standard School Broadcast and the Standard Symphony Hour, linking home and school in the companionship of music, are presentations of the Standard Oil Co. of California.

The Standard Symphony Hour continues with the theme and variations from Suite No. 3 by Tchaikowsky, a number which concludes with a polacca, a brilliant Polish dance, based on the theme or melody which forms the basis of the work.

Suite No. 3 : Theme and variations by TCHAIKOWSKY is played]

ANNOUNCER

The theme and variations from Tchaikowsky's Third Suite has just been played by the Los Angeles Philharmonic Orchestra during the two hundred and thirty-eighth Standard Symphony Hour under the direction of Dr. Artur Rodzinski, a program sponsored by the Standard Oil Co. of California.

The concluding number on this program will be the introduction to Act III of Wagner's opera, Die Meistersinger, leading at the close to the Dance of the Apprentices. . . .

The Standard School Broadcast will be given on Thursday morning, the elementary lesson from 11 to 11:20 and advanced from 11:25 to 11:45, as a preparation for the evening Standard Symphony Hour. Both programs are presentations of the Standard Oil Company of California.

[Trumpet Fanfare No. 2. Sign off and chimes]

It is a good practice to end the introductory announcement with the title and then repeat the title at the close of the number. There are always listeners who tune in during a number and like to know what it is that they have heard. Titles of songs to be sung in a foreign language should be announced in that language and usually repeated in English.

The program director should be very careful in the selection of musical talent, for whatever is done should be extremely well done. The artist should not be too ambitious. It is better that a simple song be played well than a difficult one violated. In the words of Vice President John Elwood, of the

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National Broadcasting Co., "A first-class harmonica player is better than a second-rate symphony."

Music instruction over the air may be vocal or instrumental. Assuming that the primary object of teaching music is that children may listen to music for pleasure, that they may desire to express themselves through it for their own pleasure and for that of others, and that they may become critical of it so as to enrich their own expression and to demand higher standards, broadcasting can be a very valuable aid in music instruction [47].

The nature of the preparation needed for music instruction over the air will depend upon the purpose of the instruction and the form of the musical expression. The singer will need rehearsals to master broadcasting technique and develop self-confidence. A well-known British soloist, Vivienne Chatterton, makes some splendid suggestions for radio singing. She says:

First, take warning. When you first sing in a draped studio your voice will seem about half its usual volume, and you will be tempted to force the tone. *Don't.* To mitigate this, practice singing with a finger in each ear—a trick which will enable you to hear your voice much as it would sound in the studio.

Secondly, see that your breath is perfectly silent, for anything like a gasp for breath will transmit as a veritable hurricane.

Thirdly, diction is tremendously important. Every consonant must be crisp and clear, especially at the end of a word; but this must not be exaggerated, or an uneasy sense of jerkiness will result.

Fourthly, slow songs can be taken a little faster and quick songs a little more slowly, providing the rhythm is very strictly maintained.

Lastly, do not merely "vocalize", but concentrate on the message of your song [17, p. 165-166].

Naturally, no two voices are the same, but as a rule singers with higher-pitched voices should stand farther from the microphone than those with lower-pitched voices. Considerable experimentation is sometimes necessary to determine the right position for a singer to take with reference to the microphone. Radio has developed a new type of singing voice. The singing whisperer and the crooner have been interesting innovations. The soloist stands about 6 inches from the microphone and sings in an intimate voice only a little above a whisper, so soft and with so little volume that

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it could scarcely be heard from another position in the studio. This delivery is suited to quiet songs in which there is a limited range of tone color [75, p. 120]. Besides preparation for delivery, the radio music instructor must consider careful preparation of the instructional content of the music lessons, since he is expected to interpret and explain the songs so that the broadcast instruction may be easily synchronized with the regular music courses in the schools [47, p. 330-347, 64].

Various solo instruments, string quartets, and orchestras are used to teach instrumental music over the air. String quartets transmit well because they are composed of instruments of the same tone quality, while larger orchestras and military bands, being made up of instruments of different qualities, are more difficult to transmit [21, p. 167]. Practice is needed to determine the relative positions that the instruments should be placed from the microphone to balance their strength. As a rule, high-pitched instruments should be placed farther away from the microphone than low-pitched instruments [21, 79].

Radio Plays

From the foregoing consideration it will be evident that no clear line of distinction can be drawn between the radio discussion and the radio play, or radio dramatization, as one merges into the other. In the radio play, however, the manuscript is usually prepared by one person and presented by others who are selected because they possess dramatic talent.

The radio play is a type of broadcast that is rapidly growing in popularity as the producers learn more about radio dramatic art. Clever dramatic broadcasts win much favor and stimulate the producer to renewed efforts for better radio plays. In the dramatization it is, above all, necessary to make the scene live for the listener and even make it possible for the pupils to imagine that they are living the scenes themselves [59].

Drama on the air is subject to a different technique from that of the drama of platform or stage. The visual has no

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part in it and the psychological effect of the crowded theater and the holiday mood are absent. The scene exists solely in the mind of the listener, and since it is the creation of each individual it should be perfect for him.

It is very difficult to write radio plays. The radio dramatist must know the technique of play construction, prepare the play so that it can be broadcast effectively, and understand the listener mind and methods of appealing to and holding attention and interest. Without gorgeous scenic effects the author's lines and the actors' skill must produce the desired mental reactions. Therefore, an even greater knowledge of psychology is needed by the radio playwright than is needed by the stage playwright. With a few well-chosen lines giving only the bare essentials, the radio playwright must rely upon the ever-revolving stage of the imagination of the audience to create the scenic effects and set the invisible stage.

In the absence of visual aids, the playwright must ingeniously substitute lines in the script, music, and sound effects necessary to understand the setting and the progress of the plot to produce the desired mood and to stimulate the imagination. Radio plays fall flat if they fail to create illusions and to affect human emotions. If successful, they draw tears and laughter. Scripts that bring temperaments and characteristics into severe contrast seem to be most successful.

The play must be constructed so that only a few characters speak at a given point; otherwise, the audience will not be able to identify immediately an actor when he speaks. For elementary school pupils it seems best never to use more than three characters at a point in the play. Even then there should be a marked contrast in voices, and special lines used to introduce them. For example, the previous speaker may say, "Here comes John Smith. Hello there, John!" or "What do you think, Kingfish?" Above all, the play must be educationally desirable as well as dramatically effective [9, 13, 30, 64, 91].

A British author states that the most successful broadcast plays have been transferred from the stage to the microphone [61, p. 1108], but both he and Mrs. Bushman are

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of the opinion that radio dramatists must write most of their own material [13, p. 354; 61, p. 1108]. One writer says that the reason so many of the better broadcast plays have been transferred from the stage is that a microphone classic has not been written as yet [61, p. 1108]. Baddeley points out the similarity of wireless drama and stage drama and voices the opinion that it will be unnecessary to write plays especially for broadcasting purposes when dramatists learn to adapt stage productions properly to the microphone [2, p. 1033-1034]. To support this position he points out that honesty and sincerity in writing, clear characterization, action, and sense and taste in evolving the theatrical shape of the play are the essentials of drama wherever found [2, p. 1033].

Bushman describes the limitations of radio drama by stating that the radio actor plays to what might be called a blind audience, and for every piece of business on the stage of the theater, he must devise some sound effect [13, p. 354]. Lambert does not consider this such a handicap. He thinks that the broadcast play is not a substitute for the ordinary theater, but a new form of artistic expression appealing to the imagination through the sense of hearing alone. According to Mr. Lambert, the radio play has some advantages over the stage production since it can be presented to the human intelligence undistracted by the complications inseparable from the visible stage [30, p. 50; 61, p. 1108].

Radio dramas are pictures of life. They present untold opportunities when considered as an educational medium. When radio plays are well written and suitably presented by a capable cast, listeners can profit immeasurably from life situations and the experiences of others. Radio is peculiarly adapted to that form of teaching in which the lesson to be learned is the by-product of a life experience. Through this scientific marvel the dead past may be made to live again and the cultural wealth of the ages brought to all men everywhere.

Educational subject matter can be woven into skits, interviews, and plays. It can be arranged in serials, but each broadcast should be a complete unit within itself. The dramatizations should be of genuine literary merit and embody true-to-life experiences arranged so that listeners of

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different abilities will be stimulated mentally and be able to put the parts together, arriving by their own reasoning at the lesson to be taught.

Dramatizations should be of short duration and as timely as is the medium. Simplicity of effects is to be greatly desired. In order to accomplish these results, only a few simple situations should be presented and the minimum number of characters used. One-act plays are usually adaptable because they progress quickly to a climax.

Beginning with a short prologue to set the stage, the plot of the play should progress clearly and quickly to a climax. Each character must have easily recognizable identity, and the fewest possible words should be used to convey the meaning forcefully. Every word and sound that goes on the air should contribute its share in building the word picture. The sequence of action should be unbroken. As a rule, each character's part should be brief and the sentences short. Appropriate music and sound effects are generally used to indicate the shifting of scenes and permit a moment of relaxation. The quickly revolving stage of the listener's imagination makes it possible for the playwright to include several scenes in a short play.

Insofar as possible, the scenes and action should be cleverly embodied in the character's lines. Some sounds produced by the action of the characters in carrying out their parts may be misunderstood by the listeners unless suitable explanation is included in the lines. The words and sounds should imply the action which is so essential in radio drama. Ear testing of the script during rehearsals will enable the producer to make changes needed to eliminate the obvious and to clarify confusing situations.

The work of casting is very important in the production of radio plays. Although there may be an occasional clever actor who can successfully impersonate a wide variety of types, most actors should have natural voice characteristics that ring true of the characters being portrayed. Casting is difficult because the microphone exposes insincerity, sham, and idiosyncrasies. Tracy F. Tyler points out that a telephone conversation is a good preliminary voice test.

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In casting, voice, perhaps, is the most important consideration. A British writer said, "Voices are the pigments wherewith the producer of wireless plays sets out to paint his mental picture" [8, p. 200, 1931]. Voice, divorced of grease paint and cloak, must carry the principal weight of the play. Is it any wonder then that radio actors should be selected with the utmost care? The dramatic coach must thoroughly master the script in order to determine the type of characterization that is demanded. Next, voices must be selected. "There are, of course, the main differences between bass, baritone, tenor, and their feminine counterparts," says the British Broadcasting Corporation in a recent yearbook, "but, also, be it remembered there are a thousand and one other differentiations; there are plaintive voices, happy voices, hard compelling voices, soft beguiling voices, voices that are old and worn with grief, voices that are as young as laughter itself, voices that suggest fat old men, and voices that suggest thin young ones" [8, p. 200, 1931]. Out of the multitude the right voices must be picked.

Low-pitched voices should predominate and there should be proper balance between the contrasting voices. In lieu of skill, heavy dialect parts and exaggerated characterizations are sometimes "daubed on" by amateurs. High-pitched or harsh, rasping voices are seldomed welcomed on the air. Characters must be very carefully drawn in order to create an illusion of reality.

The lack of visual aids makes it necessary that plays have as much help with music and sound effects as possible. There are instances in the broadcast play when sound effects themselves can be more eloquent and more dramatically useful than speech, and it is conceivably right to drown speech with abstract noise on certain occasions. In fact, the successful production of a play for broadcasting must be conceived in symphonic form where speech is merely one thread in the woven fabric of the sound, [8, p. 201, 1931].

At this time there are many unexplored possibilities of using music as an aid to effective radio drama. Millholland suggests that music may be used in radio dramatizations to [i] present character, [ii] establish a mood, [iii] denote the

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passage of time, and [i] suggest a scene. It might be added that appropriate musical interludes also afford pleasing relaxation from the strain of continual listening. The music selected, however, should be appropriate and should not be too strongly endowed with associations remote from the play.

Sound effects is an expression used to cover everything that comes out of the loud speaker except what is usually classed as speech or music. Judiciously used, this creature of broadcasting is not an extra appendage but is one of the three essential ingredients out of which broadcast drama is built. While hundreds of sound effects have been used in radio plays, thousands remain to be discovered, the discovery and utilization of which will relegate our present radio dramas to the age of antiquity.

While the history dramalogue is one of the most popular forms of radio dramatizations for educational purposes, there are numerous other possible forms which are suitable. The possibilities of radio drama in education are as wide as human experience itself. The principal problem is not scarcity of material but the selection, adaptation, and presentation of material in such a way as will contribute most effectively to the realization of the objectives of education. While rapid progress has been made during the past few years, we are still just at the dawn of day in educational broadcasting. The future teems with possibilities.

★ III ★

THE PREPARATION OF
BROADCASTS

*A good actor studies his part
until it becomes a part of him.*

JOHN L. CLARK

PERHAPS historians will refer to the period between 1920 and 1933 as the exploratory period in broadcasting. During that period broadcasting spread until it practically covered the entire civilized world. Phenomenal engineering achievements will be recorded as having accompanied and made possible the remarkable extension of the influence of radio. The account of the evolution of the control and administration of radio broadcasting will appeal to many. Without doubt the evolution of the art of broadcasting will stand out as one of the most fascinating stories in connection with the remarkable rise of the broadcasting movement.

Starting with traditional methods of presenting material, radio is gradually evolving broadcasting methods of its own. No longer is platform oratory nor the magazine style acceptable in the best broadcasting studios. During this adventurous period when broadcasters and would-be broadcasters were trying to conquer this new medium of communication, many amusing and heart-rending experiences might be recorded. In the great onrush to master the microphone,

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and thereby win fame and fortune, many promising amateurs have fallen by the wayside.

The advance has been rapid, but there still remain vast unconquered areas in the art of broadcasting. "Today's methods are obsolete tomorrow. Yesterday's methods are already as dead as the dodo," says Tyrone Guthrie, the well-known British dramatic playwright. Out of the confusion that has accompanied the very rapid growth of the movement, a few rather clearly defined rules for the preparation and presentation of successful broadcasts are gradually emerging. It is the purpose of this chapter to point out some of these rules that should be observed in the preparation of all broadcasts, regardless of the form in which they are to be presented.

Importance of Thorough Preparation

After the broadcaster has decided upon the purpose of the broadcast and the form to be used, he will next turn his attention to the actual preparation of the broadcast. It would be difficult to overemphasize the importance of thorough preparation. Preparation involves the selection of valuable and timely material on a subject in which the broadcaster is well informed and genuinely interested, the organization of the material for effective presentation, and the rehearsal until a good standard of delivery is developed.

While there may be an occasional genius who has a burning message and a spontaneous flow of beautiful language that will enable him to do effective impromptu speaking over the air, the average broadcaster must thoroughly prepare his script: Broadcast writers point out that the manuscript should be written and rewritten several times; it should be condensed and deadwood cut out; and care should be exercised to keep the original spontaneity so that it can be presented with an ease and freedom which do not suggest to the audience that intense preparation has been made [12, p. 933]. William Hard suggests that the extemporaneous broadcast is suited especially to dramatic instances.

Work in close cooperation with the program director of the broadcasting station ★ The station management is very much

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interested in the success of every program that is broadcast from its studios. The program director is in position to observe the errors that are most frequently made in broadcasts and to offer constructive suggestions to avoid them. Therefore, the prospective broadcaster should consult the program director at the very first opportunity after the broadcast is scheduled. If the station has a list of rules to be observed, or suggestions to assist in the preparation of a manuscript, the program director can supply them. He can also inform the prospective broadcaster of various ways in which the station can assist him in the preparation and rehearsal of the proposed broadcast. An open-minded attitude and willingness to accept the opinion of the program director or studio operator who is handling the technical pick-up will facilitate the preparation of a broadcast. Not only the occasional broadcaster but also those who broadcast regular series can profit by working in close cooperation with the program director. It is the business of the program director to know how to build broadcast programs.

Visualize the audience while preparing the broadcast manuscript ★ In visualizing the audience, the broadcast speaker should consider the relationship between himself and his listeners. On this point Morse Salisbury, Chief of the Radio Service, United States Department of Agriculture, says:

It seems to me that the person who sets out to prepare and deliver a radio talk must consider first of all the relationship between himself and the listener. He is going to be a guest in the home of his listeners. As a guest by radio he is under the same obligations that rest upon guests present in the flesh. Common courtesy and common sense dictate that he be cheerful and interesting and sympathetic. A family has to tolerate the presence of a caller even though he be an utter bore. But the radio listener doesn't need to be one tenth so patient and long-suffering to the bore invited in by way of the radio receiving set. The moment that his radio guest becomes tedious or repetitious or in any way dull, the listener may excuse him and does excuse him by a flip of the dial. Hence the radio speaker is at pains to be courteous, to be interesting, to be clear and logical in his statements [77].

If the broadcast is intended for classroom reception the script writer should visualize on classroom to which he directs his broadcast material. If the broadcast is intended for home reception, the person preparing the manuscript should

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make a mental picture of one individual who will be listening in front of his loud speaker. The content material should be selected because of its value and importance to the listener and because it will link up closely with what he does and thinks about from day to day.

The broadcaster should consider what the mental attitude of the listener will be at the time the broadcast is put on the air. It is obvious that the appeal should be different if the program is scheduled for 11:30 p.m. than if it is scheduled for 8 a.m. An early evening broadcast may reach a tired audience. Different audiences listen at different hours. The broadcaster can not make his subject matter link up closely with what the listener does and thinks about from day to day unless he visualizes the listener.

The principal factor that tends to make a broadcast timely is that the broadcaster appreciates and ties in with interests that are uppermost in the minds of the listeners at the time the broadcast is put on the air. For this reason the speaker may use the press, the platform, and the radio to build interest in the subject of the broadcast; or the speaker may capitalize on the interest that the listener already has. Regardless of how it is achieved, the thoughts and attitudes of the listener at the time of the broadcast do much to determine the effectiveness of the radio presentation. The timeliness of a single broadcast may determine the results of an election.

Since the audience is composed of every race and color, every age and creed, the manuscript should stay within the bounds of good taste both as to form and content. Good taste decrees that the broadcaster avoid the use of vituperative remarks, questionable humor, personalities, racial or religious slurs, recondite references, and even puns and foreign phrases. Material of an advertising or propaganda nature should not be included. While the broadcast may be addressed to a specific class or group, it should not include material that might antagonize any considerable minority of the listeners.

The broadcast should be accurate and truthful always, and presented in a dignified way that will appeal to the intelligence of the listeners. Unless the broadcast is in the nature

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of a debate, the speaker should avoid dogmatism and adhere to a strict policy of impartiality. No attempt should be made to give a misleading impression. Controversial subjects can be handled best as debates in which fair play is exercised. Even then extremely controversial statements should be avoided.

Organize the subject matter to conform to the requirements of the medium ★ The broadcast is to be delivered to a virtually blind audience which cannot be seen by the broadcaster; neither can the audience talk back to him. The dependence upon hearing alone requires more concentration of attention and stimulates more freedom of the imagination. The fact that nothing can be seen is not a loss in some ways, but rather a gain. For given a cue, a directing impulse, the mind's inner eye will visualize scenes beyond the physical powers of designers to build or the camera to photograph [26]. An imaginative writer can build up a scene by subtle and ingenious word-sound picture which will create illusions of the imaginative listener infinitely more romantic than the tawdry grottoes of the stage [39].

In the absence of visual presence, the ear appeal should be given uppermost consideration during the preparation of the broadcast. Action should be explained in words and sounds. Space gestures, and even facial expressions which play such important places in public speaking and stage productions, are absent. A disarming smile may soften a cynical remark, but the smile does not go out over the air. The words used, the voice contrasts, the manner of delivery (even the pauses), and the sound effect must be carefully synchronized to convey the desired impression.

In the absence of discussion, the manuscript should be prepared to anticipate and answer listeners' questions and stimulate their interest and imagination. Since the broadcaster cannot profit from the reactions of the listeners during the broadcast, considerable practice and experimentation are usually desirable in order to perfect the manuscript and delivery.

In broadcast series, plan the radio presentations to profit from accumulative interest ★ Regularity of presentation and

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unity within a series are important factors in building an interest and extending the use of a broadcast series. In this way the broadcast is able to profit from the criticism of the listeners, and the listeners learn to adjust themselves to the broadcaster's voice and manner of presentation. The habit of regularity in the use of the broadcasts and the feeling of familiarity with the radio personality combine to enhance the value of the series. The Amos and Andy series may be cited as an example. Interest awakened in one broadcast and activities growing out of it can be tied into the following program in the series. Prof. J. C. Jensen, of Nebraska Wesleyan University, says:

We have found it desirable in broadcasting series of lectures of an educational nature to be very careful of the lesson assignment for the next period. The plan that has worked out to best advantage is to spend about one fourth of the time at the beginning of the period in reviewing the preceding lesson and answering questions which may have come in, and spending an equal amount of time at the close of the period outlining the next lesson in the textbook or other outlines which are being followed.

Thus, it will be seen that the cumulative value of a regular unified series may increase manyfold its worth over irregular offerings of unrelated material.

Other things being equal, it is much better to use the same broadcasters throughout an educational series than to change speakers each program. The nature of some series precludes the possibility of using the same speakers. The presentation of famous writers on successive programs in a Literature by Living Writers series may be used as an example. The continuity can be at least partially preserved by adopting the interview method and using the same interviewer and similar set-ups throughout the series.

Some writers recommend terminating each performance in a series at an interesting point so as to keep up the expectancy. Others recommend that each broadcast should carry a complete thought, lesson, or story, as the case may be. An examination of successful broadcast series indicates that there is no conflict in the two viewpoints expressed. Each performance of a successful broadcast series usually carries to completion certain parts of the plot, story, or lesson; the

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same performance introduces a new unit or plot to motivate interest in the next broadcast.

There should be no long lapses between successive broadcasts in a series. Many of the popular series are broadcast daily. Experience indicates that not more than a week should elapse between broadcasts in a series. A brief résumé of the preceding broadcast in a series will serve as a good connecting link.

In Writing the Broadcast

Beginning with the traditional methods of the news reporter and the playwright, broadcast writing is gradually evolving methods of its own. A good radio manuscript has certain points in common with both the news story and the stage manuscript. It also has certain characteristics that are peculiar to broadcasting.

The style of the manuscript and the words used are very important, but they are only means to an end. The sound of the words and phrases becomes an important consideration. The material must be vitalized with interest-holding qualities. Atmosphere is insinuated, and voice and sound effects give the setting, convey the meaning, and express the emotion in broadcasting [44, 81].

Plan to catch the interest of the listener at the very beginning of the radio broadcast ★ While a clever introduction by the announcer may create an atmosphere of expectancy, the broadcaster's lead must awaken the listener's interest and fix his attention on the subject being presented. He gives a greeting to his posts. This greeting may be either formal or informal. He may introduce his subject with a squib or an anecdote. He may start with something that is certain to be in the foreground of the thinking of most of his listeners [77].

The consensus indicates that long prefatory statements should be omitted, and the broadcaster should plunge right into his subject by giving a vivid illustration of one of the most important points in his broadcast [69, p. 305]. In case the speaker presents a regular series of broadcasts this point is not quite so important as it is with the occasional broadcaster. He may make an introductory statement con-

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necting the subject he is going to discuss with the previous one. In this way the interest of the regular listeners in the previous broadcast will tend to carry over until the speaker can get a good beginning on the new lesson. If the interest of the listener is not caught immediately, he may tune out the station. If he continues to listen, an unfavorable mental attitude is created that is hard to overcome later [12, p. 933-934; 51, 64, 69].

Use strong common words with rich meaningful associations ★ Since words are the names we attach to experiences, it is highly important that the vocabulary level of the radio broadcast be determined very largely by the experiences of the listeners. Words are simply conveyors of ideas. If the words used by a radio speaker are unfamiliar to the hearers, they will fail to convey the ideas that the speaker had in mind. Suitable vocabulary is more important in broadcast speaking than it is in direct speaking, since the vocabulary is expected to carry exact meanings to the listeners. The vocabulary that people understand from listening is considerably different from the vocabulary they understand from reading. A speaking vocabulary is needed in broadcasts. Therefore, the sound of words becomes an important consideration. Homonyms are confusing. Sibilants do not broadcast well. When practicable to do so, other words with similar meanings should be used for words containing sibilants. For example, "crime" may be substituted for "lawlessness", and "gratitude" for "thanks" [51, 78, 87]. Certain combinations of words are difficult to say. "Enlisting and assisting listeners," the title of CHAPTER IV, will serve to illustrate this point.

Gosden and Correll, the popular Amos and Andy radio stars, give the following advice in regard to simplicity of expression:

We recently had a call from a very prominent physician who was scheduled to speak on the radio during Child Week. This doctor had prepared a 15-minute talk which appeared to have great educational value. He read us the script and asked that we suggest any changes which would benefit the script from a radio standpoint. Our suggestion to him was to simplify the entire talk. In other words, if he were addressing a medical group his script would have been perfectly under-

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stood, but inasmuch as the radio audience demands simplicity we suggested that he change the script in this respect, which he did. We heard his radio address and could not help but believe that it was not only very interesting but thoroughly understood by his listeners [*Letter dated May 17, 1932*].

The liberal use of strong, common, Anglo-Saxon words will improve the radio vocabulary. It has been said that three-fourths of the words used in the ordinary writer's vocabulary are of Greek and Latin origin, while three-fourths of the words used in the ordinary speaking vocabulary are of Anglo-Saxon origin. More nouns and less qualifying words are used. First and second person, active voice, indicative or imperative mode, give the broadcast certain dynamic qualities.

The style of the manuscript should be well suited to the subject matter of the address and the personality of the broadcaster. An original individual style may be pleasing. Some repetition for emphasis and clarity is allowable. Short paragraphs facilitate the delivery. Above all, the manuscript should follow a natural speaking style. Best practice indicates that the manuscript should carefully build a word picture designed to impress upon the listener the central idea of the broadcast. In doing this all extraneous material should be eliminated and minor points sacrificed when necessary. A liberal use of illustrations and human interest sidelights will be found helpful in building the picture. Short, concise statements and a direct style combine to make the line of thought easy to follow. Descriptive phrases frequently replace complete sentences. Seymour and Martin point out that the radio writer "must unlearn many of the prose writers' rules of sentence structure; must forget many of his best tricks for obtaining variation in sentences; must disregard such forms as dependent clauses and balanced sentences; and he must even unlearn the first law of writing he ever learned—that every sentence must have a subject and a verb" [81, p. 51].

Morse Salisbury, Chief of the Radio Division of the United States Department of Agriculture, points out that the traditional academic style is to walk backward into sentences. "For example," says Mr. Salisbury, "the person who is preoccupied with academic interests will say, 'It was done by

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me,' instead of saying, 'I did it.'" [77]. Scholarly groups shy at the perpendicular personal pronoun.

Many broadcasters find a speaking style can best be attained by dictating the address from carefully prepared notes. The manuscript prepared in this way may lack smoothness when read, but it will retain the vitality and naturalness of the spoken word in the broadcaster's own style. In this way long, involved sentences, difficult words, a passive voice, and an impersonal style can be replaced by short, direct sentences, active voice, indicative mood, and the liberal use of personal pronouns in the first and second person.

An original manner of expression may be pleasing; but it must be easily understood when it is heard once. Dialect broadcasts frequently are difficult to understand. Radio writers must learn to hear their own writing rather than visualize it on the printed page. Hence the broadcast should be written in a speaking style suitable to the personality of the broadcaster [81]:

In broadcasting to various grade levels in schools, broadcasters must be exceedingly careful to select words which will be understood by the pupils. Dale found that the vocabulary level of the most popular broadcast instructor of the Ohio School of the Air was much more suitable for the listening pupils than the vocabularies used by less popular broadcast instructors [22].

When it becomes necessary to use new and unusual words, the meanings should be made clear. Dale is of the opinion that at least 90 percent of the words in a radio lesson should be known by the listening pupils. If the broadcaster will use Thorndike's Teacher's Word Book or Dale's list of evaluated words, when he prepares his broadcast, it will aid him materially in selecting a suitable vocabulary [22].

Write in a speaking style, using a pleasing variety of phraseology * The phraseology and sentence structure should be easily spoken and appeal to the sense of hearing. A chatty style embodying some of the incoherencies of ordinary speech and illustrations taken from the everyday lives of the listeners makes the broadcast sound natural and spontaneous.

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Although an informal style similar to that used in conversation should be followed, the broadcaster should use extreme care not to appear either condescending, dictatorial, or too familiar.

It is very difficult for one person to write in another's speaking style. There are some people who are quite proficient in radio writing, but they are poor broadcasters. There are also some broadcasters who are very clever in broadcasting material written in various styles. Too often, however, there appears to be a lack of sincerity on the part of the sweet-voiced speaker. Therefore, it is usually a good rule to have the person who writes the broadcast present it over the air. Of course, dramatic productions are the outstanding exception. Even then the casting must be very carefully done, and the producer usually takes some liberties in interpreting the manuscript.

In broadcasting to schools, persons with pedagogical background who have experiences and can pass them on in a dramatic and lively way are more to be desired than radio or stage stars. The radio should bring true, genuine life into the classes by presentations which come, on the one side, from the direct experience of the speaker, and, on the other side, afford the listeners an opportunity to share his experience [56].

Keep the radio broadcast compact and concise, making the line of thought easy to follow ★ This does not mean that the broadcast should be encyclopedic in nature. It does mean, however, that the manuscript should deal directly with the subject under consideration and not wander far afield to introduce distantly related material. Time over the air is very valuable—every moment should count.

The reports indicate that the organization of the broadcast and the choice of language should be such as to permit a skillful instructional performance before the microphone. The various points should be presented and ingeniously fitted together with language that is easily understood and the material organized in a clear, orderly, teachable form [69, p. 305]. Short, choppy statements, as well as long, involved, confusing ones, should be avoided. After the

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subject matter has been decided upon, the radio manuscript should be written in the most concise and lucid phrasing consistent with the transmission of the message therein.

Kadderly points out that some words are hard to understand when broadcast even though those same words are perfectly clear when the speaker is present. He also states that printed words may be understood because of the context. If they are not readily understood, the reader can pause to study them or look them up in a dictionary. But in the good radio manuscript the meaning of the word cannot be cloudy—it must register easily on the ear and brain [44, p. 3].

Slovenly thoughts and vague ideas have no place on the air. Ideas still in solution should never be broadcast. Poorly focused mental pictures cause hesitations in speech and confusion of the listeners. Emma Thursby stresses this point when she says, "To sing beautifully one must think beautifully; for, after all, the voice is but a reflection of the inner self" [64]. After all, the speaker must think clearly if he is to give clear expression to his ideas [6, p. 100; and 47].

The use of similes and metaphors, particularly those related to the experience of the listeners, will be found effective. Abstruse ideas finding utterance in hazy, involved expressions will fail to hold the audience. The radio speaker's style must be clear and his illustrations simple and easy to follow. Even after the script has been submitted for the broadcast, it can be tested for diction as well as for emphasis, repetition, etc. The script can be rewritten until it becomes an effective expression of the ideas involved. The ability to rewrite radio manuscripts is not a common one, for the vitality and worth-while parts of the original must be preserved at any cost [12, 15, 51, 69, 87].

Make only a few points and illustrate them amply ★ The broadcast should be written usually around one dominant idea determined by the major purpose of the broadcast. The salient facts needed to fulfill the purpose should be selected and grouped under a few points and arranged in proper sequence to insure the retention of the interest and the expectancy of the listener as the line of thought progresses rapidly to the climax. Since it is impossible for the average

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listener to retain more than a few points at a time, only a few points should be made in a single broadcast.

Experienced broadcasters point out that one point should be discussed at a time and care be taken to complete every thought that is injected. The examples and comparisons used should register in the minds of the listeners. Brevity, combined with showmanship, is the formula for successful radio manuscripts.

Strive for an effective close ★ If the broadcast is presented as a dramatization, the culmination of the plot will mark the close of the broadcast. The climax is not so easily recognized in other forms of radio presentation. Nevertheless, the material should be organized and presented in such a way as to lead to a climax in interest which becomes the logical place to close.

It has been pointed out previously that the line of thought or development of the situation should be easy to follow. It was also pointed out that only a few points clustering around a single idea should usually be presented in one broadcast. It follows that if these points are skillfully summarized confusion will be minimized. Considerable repetition of the major idea is permissible if it can be done without the appearance of being tedious or repetitious to the listener.

Proposed projects or suggestions for further investigation growing out of a broadcast to schools have proved to be effective ways of closing broadcasts to schools. The raising of a question at the beginning of a broadcast to be answered at the close is frequently used in educational features. A number of other suggestions for an effective close might be made. After all, no general rule can be laid down, since the variable factors of subject matter, purpose, personality, etc., must be considered in determining the most suitable way of bringing a broadcast to an effective close. In this, as well as in many other respects, effective broadcasting depends upon innate ability reinforced by experience and not upon precept or example.

Broadcasters point out that when it is necessary to use technical terms they should be explained [38, p. 252]. Unless the broadcaster is very skillful in his delivery, qualifi-

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cations of any statement should be used after it and not inserted as a clause in the statement itself. (The sentence just used is a good example of a poor radio sentence.) The broadcast should have an attractive beginning, the body of the talk should carry the interest throughout, and the finish should have a good snappy climax. In brief, the broadcasting teacher must have something to say, stick to his subject and say what he has to say as simply and directly as possible. In this respect broadcasting is more exacting than classroom teaching. Many errors of enunciation and of rhetorical form which are overlooked in classroom teaching stand out in bold relief when broadcast [15, 28, 51, 52, 69].

Prepare the broadcast manuscript to conform to the best practices as to mechanical form ★ Some writers are of the opinion that all radio manuscripts should be prepared to follow a standard mechanical form. They point out that a standardized form could be developed that not only would greatly simplify the work of the station operator but would also facilitate the actual broadcasting by the radio talent. While it is highly improbable that all broadcasters could agree on the details of any set mechanical form for their manuscripts, some general suggestions will probably be helpful to most broadcasters, especially to amateurs on the air.

It is desirable to have the manuscript clearly typed on paper that will not rattle when handled before the microphone. The new cotton sheet, rustle-proof paper is best. But if it is not available each sheet can be mounted on light cardboard. The pages should be numbered, preferably on the lower right corner, but the sheets should not be fastened together nor folded.

The number of copies that are needed by the station personnel should be ascertained in advance. If the broadcast is to be a talk without musical setting or sound effects, there should be three copies of the manuscript—one for the speaker, one for the staff, and one for the control operator. If some other form of presentation is used, additional copies should be prepared for each person participating in the broadcast. Additions or deletions are not countenanced after the manuscript has been prepared and placed in the hands of the station staff.

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The following copy of the first page of a broadcast manuscript is reproduced here to illustrate a desirable mechanical form:

Station WEA
Tues. Oct. 9, 1932
7:10-7:30 p.m.

Prof. H. E. Blank
672 Randolph St.,
Main 5439-J.

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RADIO SCRIPTS

[Orchestra—*In a Little Red Schoolhouse*—1 minute—dimming through]

ANNOUNCER

Good evening, Prof. H. E. Blank of Osceola (Os-ce-p-la) University will now present the second broadcast in his series entitled "The Art of Broadcasting." These programs are intended primarily for the 376 teachers enrolled in the extension department of Osceola University. Without doubt, a number of home listeners who have always been curious to know just how broadcasting is done will be interested eavesdroppers as this eminent authority speaks. I now take pleasure in introducing to you Professor Blank.

PROFESSOR BLANK

Fellow teachers and friends, your local leader has already told you that this subject would be on the mechanical form of radio manuscripts. You were also given the first page of a radio manuscript to illustrate desirable mechanical form. Now, I have a pleasant surprise for you. We have with us a nationally known radio writer in person. I now present Mr. R. Emerson Hawthorne, author of the popular radio mystery series, *Black Patches*. Mr. Hawthorne!

MR. HAWTHORNE

(7:12:30)

Hello, folks! Perhaps I am giving away a professional secret when I tell you that most radio artists use manuscripts when they broadcast. If you teachers will examine the first page of this radio manuscript, you will see the *station*, the *date*, and the *hour* in the upper left corner, etc.

As illustrated above, the mechanical set-up of the manuscript is intended to make clear the parts to be spoken in contrast to the directions to the producer. Some writers have the spoken parts typed in black and the supplementary instructions in red. Wide spacing and short paragraphs

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properly used facilitate broadcasting. Careful punctuation aids correct phrasing.

The manuscript should be complete. All announcements, directions, musical settings, and sound effects should be properly placed in the manuscript, in set forms that will make them easily distinguishable. All words and figures in the context should be spelled out, and words that are difficult to pronounce should be written a second time phonetically. Dashes and capital letters are used to illustrate pauses and stress.

The broadcast should be accurately timed during rehearsal and time check points marked in the left margin. In this connection it is also desirable to have certain paragraphs or sections that can be omitted if the actual delivery is running short of time. Liberal margins should be left at the bottoms of the pages, and a sentence should not be carried over from one page to another.

It is evident from the foregoing discussion that the mechanical form of the radio manuscript is an important factor in the success of most broadcasts. Although it may never become feasible to have all radio manuscripts follow a standardized mechanical form, some suggestions tending toward uniformity in certain particulars will be welcomed both by broadcasters and station staffs.

Rehearsal

The broadcasts production should be given in as finished a manner as possible. This will usually necessitate considerable practice before the actual broadcast. The nature of the rehearsal will depend upon the talent and the form of presentation. The rehearsal for a radio address should be quite different from that for a radio play. An infinite amount of care is necessary in either case.

Perfect delivery by practice ★ If a radio address is memorized and recited, it sounds artificial. If it is read, the reading interferes with the elasticity in delivery and the address becomes dull and lifeless. A new technique is required—that of talking from a manuscript and fitting exactly the time limit [68, p. 177].

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After a play has been written or adapted, the dramatic coach must select the cast and conduct several rehearsals before the play will be ready for the unseen audience [13, p. 353]. Radio properties needed to create atmosphere by producing various sound effects need to be secured and tested [30, p. 50]. The members of the cast should thoroughly familiarize themselves with their lines, so that they can really live the part as they present it before the microphone. Actors should really act, as it tends to project their radio personalities and impress the audience. The coach usually listens from the control room and directs the cast through the microphone. This form of coaching is known as the "talk-back." Besides studying the effects of the presentation, the coach must make an exact timing of the script and be on the alert to correct disturbing sound effects and awkward pauses [13, p. 351-352; 30, p. 50; 47, 72, p. 115-117].

Dramatizations must always sound authentic and human. This necessitates complete familiarity with the dramatization on the part of the participants. Musical settings and sound effects must be carefully rehearsed and tested along with the lines to insure proper blending and smooth moving of the play. It is vital that extreme pains be taken in the rehearsal of radio plays; otherwise, the interpretation will be dull and muddy.

Exaggerations in the interpretation of characters make the entire production tawdry and cheap. Dialects must be understandable, and all of the characters must learn to assume the proper positions in front of the microphone to insure the presentation in as finished a manner as possible.

Mr. Ernest LaPrade, of the National Broadcasting Co., makes the following comment on the rehearsal of radio music:

Provide for ample rehearsal. The microphone has not been invented that will eliminate "wrong notes".

During rehearsal have a competent musician who is accustomed to listening to radio reproduction stationed in the control room or monitoring booth to check the balance of instruments and of voices as heard through the loudspeaker. I know of no other way to determine the proper placement of performers with reference to the microphone, as acoustical conditions differ in different studios, and even in the same studio under different atmospheric conditions.

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Time each composition during rehearsal. Do not assume that, because a given piece was performed in 5 minutes last year by Brown, Smith will do it in 5 minutes today. In order to obtain accurate timing during rehearsal, when there are frequent interruptions and repetitions, it is almost essential that the timer be provided with a score, or at least a part, of the work performed, and that he be able to follow it.

In solos with orchestral accompaniment do not allow the soloist to "hog the mike" so that the orchestra becomes nearly or quite inaudible. The accompaniment is a part of the music [50].

In the preparation of educational broadcasts, speakers frequently rehearse their manuscripts before pupils in a classroom if the presentation is intended for school reception. If the broadcast is planned for home reception, a rehearsal with a family group in a home is a common practice. The manuscript should always be read aloud in advance to test its ear quality and to determine whether or not the words and sentences can be easily spoken. Of course, the better the speaking style used in the manuscript the easier the delivery will be. As was previously pointed out, many broadcasters dictate radio addresses to attain a speaking style.

The use of phonographic records and Blattnerphone recordings is rapidly gaining favor as a means of improving broadcasts. By means of the recordings the broadcaster is able to study his own voice and delivery as they sound to others. If the entire broadcast is recorded, the broadcaster can observe the effect that his presentation is having on the listeners while the broadcast is actually on the air. Some of the British broadcasting teachers who present radio lessons for schools report that they have been able to make marked improvements in their radio lessons after observing their effects on pupils in a classroom while the lesson was being broadcast from Blattnerphone recordings.

Make the broadcast exactly fit the time limit ★ Broadcasting stations operate on exact schedules. Therefore it is desirable that the broadcaster begin immediately when his program has been introduced. It is even more important that the broadcast stop exactly when the time is up. The adaptation of the broadcast to the time limit is usually accomplished by timing the delivery during rehearsal [69]. Judith Waller suggests

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that a clock in plain view of the broadcaster during the broadcast will assist him in fitting the time limit.

There are occasional instances when a broadcaster will speak much more rapidly when he is actually on the air than he did in practice. There are many more instances, however, when the broadcaster speaks at a slower rate than during rehearsal. This makes it necessary for parts of the manuscript to be omitted. Some program directors measure the speaker's normal rate of delivery and then advise him as to the number of words his broadcast should contain. Rather than be cut off when the time is up or speed up to finish on time, it is better to have a few paragraphs before the summarization that may be omitted if the time is nearly up. If the broadcaster has marked the time of his normal rate of delivery at various points in the margin, it will assist him in regulating his delivery while on the air [47, 64].

If the broadcaster does not begin immediately when the signal is given to start, an awkward pause ensues which tends to disturb the listeners and place the speaker at a disadvantage when he does begin. After several rehearsals and a few broadcasts it is not unusual for a broadcaster to be able to start punctually and time his manuscript so accurately that he will not vary more than 10 seconds from the allotted time when on the air. This accurate timing sense is a new technique which is worth mastering [69].

Hints for Greater Effectiveness

Listen to other broadcasts as a means of securing suggestions for improving your own ★ Each individual has his own particular style of delivery. It is seldom desirable for one broadcaster to attempt to copy the style of another. On the other hand, the amateur can gain many helpful suggestions by listening to successful broadcasters.

Many questions, such as the timeliness of the topic selected, the amount and organization of the subject matter, the manner of delivery, etc. may be studied by listening to broadcasts. The amateur will find it very profitable to study the essential characteristics of successful broadcasts.

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Plan to make a definite appeal to the mental-emotional activity of the listener * It has been said that we never remember what we hear; nobody ever did. We never remember what we see, and we never remember what we read. We remember what we think. Therefore, if the listener is expected to remember anything from the broadcast, it must be presented in a way that will cause him to think. Even a program of light entertainment is planned to make an emotional appeal to the hearers.

The first prerequisite of mental response to a broadcast is that the listener's attention be sustained throughout the broadcast. Since several suggestions have already been made on creating and sustaining interest, only a few additional suggestions will be made here.

By stating problems, introducing questions, giving references, and making requests, listener can be stimulated. The use of human-interest material, the clever presentation of unusual facts, the use of appropriate short anecdotes, and rapid-moving and varied action are all conducive to listener activity.

In broadcasting to schools especially, the importance of mental activity by the pupils should not be ignored. Dr. W. R. McConnell points out that he thinks there can be mental activity while the child is sitting dead still in the seat. "So," says Dr. McConnell, "I am not so much concerned with having children go to the board, walk around, or fill in blanks during a broadcast. I am not always sure there is mental activity accompanying the physical activity" [80].

The invisible teacher is usually unacquainted with the different students to whom he sends his message, and is, therefore, expected to stimulate activity of pupils who have widely different knowledge, interests, and abilities while addressing himself to a type student. In his effort to accomplish this difficult teaching feat he is further handicapped by being unable either to see his pupils or to be seen by them. This also makes it impossible for him to study the effect of his presentation upon the pupils or to direct the class discussions [3, 12, 51].

THE PREPARATION OF BROADCASTS

The broadcasting teacher should prepare his material so that it will suffer the minimum loss when received through the sense of hearing alone [12, p. 33]. The manuscript should get away from purely didactic matter and introduce a good deal of human interest material.

Use all available means to create interest and assist listeners in making the fullest use of the radio broadcast ★ It is highly desirable that the administrator of a broadcast series provide adequate publicity and supplementary aids to assist the listeners in profiting most from the broadcasts. The more advance preparation needed by the listeners the more merchandising and supplementary aid will be needed. Listener activity is so important in educational broadcasting that the following chapter is given to a discussion of the subject.

★ IV ★

ENLISTING AND ASSISTING
LISTENERS

*Full many a flower is born to blush unseen,
And waste its sweetness on the desert air!*

GRAY

RADIO broadcasting disseminates information in such a way that it becomes instantly available to great masses of people. Although the wise choice of sponsorship and broadcasting personnel will do much to establish confidence and create interest in a forthcoming broadcast series, extensive publicity and special aids for listeners will still be necessary if the active participation of a large number of listeners is secured. Commercial broadcasters realize the importance of listener activity if radio advertising is to become effective. It is even more important that listener activity be secured if the broadcast is intended for instructional purposes. This chapter will be devoted to a discussion of provisions for enlisting and assisting listeners in making effective use of the broadcasts.

The promoters of an educational broadcast series must really merchandise the series. Inertia and mistrust must be overcome. The fear of elimination of the local teacher, too much centralization of authority, fear of propaganda and commercialism must be carefully considered and diplomatically handled. The broadcast must compete with various other broadcasts at the same period, as well as numerous other possible ways of using the time. The principal task in merchandising is to cause the prospective listener to feel that

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the broadcast is important to him and cause him to want to listen to it.

Effective Use of the Broadcasts

The following list will serve to suggest various ways being employed to secure effective use of the broadcasts:

Newspapers and magazines:

Feature articles; short press notices following a daily sequence; programs; special news items; pictures of the broadcasting talent; pictures of listening groups; letters from listeners; box announcements; small display advertisements; interesting points in the broadcasts reproduced as news stories; syndicated columns.

Broadcast publicity:

Regular announcements; "teaser" campaigns; previews; reviews; stimulating questions.

Other forms of publicity:

Window displays; billboard advertisements; bulletin-board announcements; printed or mimeographed publicity mailed to listeners or heads of listening groups; car cards; personal calls; direct announcements to cooperating groups; telephone calls; prizes and awards; electric signs; theater appearances; theater announcements; theater lobby displays.

Aids-to-study:

Printed or mimeographed copies of the broadcasts; outlines of subjects and syllabi; guide questions; references for reading; examples of listener use of the broadcasts; suggestions how to use; diagrams, illustrations, and various mechanical aids; possible projects; special aids for leaders or teachers of the participating groups.

Skillful broadcast teaching:

Recognition of listeners; local references and applications; suggestions motivating activity; stimulating questions; references to available aids; clear, invigorating style; psychological organization.

Regularity and continuity of a series:

Same voices; continuation of the line of thought; similarity in style and form of presentation; same broadcast personalities; reviews and previews.

Local leader and listener cooperation:

Conferences to stimulate and facilitate use; evaluations and reports; local needs made known to broadcasters; proper listening conditions

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and aids; readiness to assist the broadcaster; local leaders write letters and newspaper articles in regard to the broadcasts [46].

Merchandising Broadcasts

Commercial broadcasters have used the various means that were available to them to merchandise their broadcasts. For example, a milk company placed cardboard collars on each bottle of milk; a railroad company announced a broadcast on a dining car menu; a publisher advertised on a paper-book cover a series of broadcasts prepared from the book; and a telephone company clipped announcements to its telephone bills [46].

Plans for creating interest and securing effective use of the broadcast series should be carefully worked out. Both the press and the radio are fine publicity animals and when they are hitched together their pulling power is more than doubled. It is usually desirable to use a variety of means of creating interest and facilitating the utilization of the broadcasts. The publicity material should be systematically prepared and released at the most opportune times.

It would be difficult to overestimate the importance of good publicity. Practically every known form of publicity commonly used to create interest in commercially sponsored broadcasts may be used advantageously to interest listeners in educational broadcasts. In addition, several avenues seldom available to commercial broadcasters may be used to advantage.

Consensus of opinion indicates that press notices and advertisements should be used in newspapers and magazines in general circulation among the groups to be served. If broadcasts are intended for school use, school papers and educational magazines should be used in addition to the daily press. The following is a good news story of a forthcoming educational broadcast.

Boston, Feb. 21.—Faneuil Hall, "Cradle of Liberty", tomorrow will be the scene of an historic Nation-wide broadcast, when Gov. Joseph B. Ely, of Massachusetts, pays tribute to the memory of George Washington at a patriotic gathering of the Ancient and Honorable Artillery Company.

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Originating in the armory, a room on the third floor where General Washington once supped, the birthday program at 1:30 to 2 will be distributed by WBZ-WBZA to an NBC-WJZ network of stations from coast to coast.

As the Nation listens, the program will bring to life the famous old lithograph, "The Spirit of '76", with its blaring fifes and drums. It will unfold bits of colorful description of Revolutionary flags, muskets, powder horns, and sabers, all with their lustrous traditions, and prized possessions of the Ancient and Honorables' armory.

The dust-covered bell high up in the ancient belfry will ring again and a cannon salute to the "Father of His Country" will be invoked from a drum that once beat at Bunker Hill or Lexington.

Governor Ely, who tomorrow observes both his own and Washington's birthday, will address the Nation's audience on "Washington—From an Ancient and Honorable Setting." It will be the Governor's first appearance on a coast-to-coast network.

Musical features of the patriotic program will be introduced by Oscar Elgart and his Continentals, an orchestral unit of 16 pieces, and the Minute Men, a double octet under the direction of Edward C. MacArthur. J. Warren Hull, of the WBZ-WBZA staff, will announce the program.

Arrangements for the broadcast were made by a committee including Capt. Joseph G. Maier, of the Ancient and Honorables; George A. Harder, representing Governor Ely; Walter E. Myers, of the National Broadcasting Co.; and Oliver Morton and John L. Clark, of station WBZ-WBZA.

Broadcast announcements over the station or stations that are going to present the program may be used to supply needed information and stimulate interest of the prospective listeners. The following are direct announcements of the types that have proved their worth in advertising educational features:

Ladies and gentlemen, we pause briefly in our schedule to announce ~~the~~ leading radio features over this station tomorrow (or this week) include Mr. _____, whose experience in _____ includes _____, will present _____ over this station at _____ o'clock tomorrow. Don't miss it.

Women's legal rights form the theme of the skit, A Day in a Lawyer's Office, to be presented on WMBD's Homemakers' Corner at 2:05 p.m., Friday, June 5. Members of the Peoria League of Women Voters will take the parts, with Miss Estelle Harmel, Peoria attorney, taking the role of the lawyer.

In addition to the regular broadcast announcement, "teaser" campaigns may frequently be used advantageously

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to stimulate interest in broadcasts. Begin with an announcement a week before the broadcast and add an additional announcement each day until seven are given on the day of the broadcast. Give a dramatized preview, or tell just enough to stimulate interest and curiosity, leaving the listener eager to know more about the program. The following is an example of a "teaser" announcement:

Have you arrived at, or passed, your twenty-first birthday? . . . (Pause.) If you are 21 years of age or over, you won't want to miss . . . or should not want to miss, the first of a new series of programs over this station at 6:45 tomorrow evening.

School Listeners

Almost from the very beginning of educational broadcasting, listeners' aids-to-study have been used. These aids may be prepared for use by the teachers or they may be intended for use of the pupils. The principal purpose of these aids-to-study is to make it easy for the listeners to make profitable use of the broadcasts. The advance material usually contained in the aids-to-study, or study guides, as they are sometimes called, includes:

The date and the exact time of the broadcast; by whom and the form of presentation; the exact topic and purpose of the lesson; an outline or preview of the lesson; suggested problems, projects, guide questions, and review tests; pictures and review tests, illustrations, and charts; suggested references, maps, charts, drawings, pictures, black-board outlines, specimen, equipment, and other aids to be supplied by the listeners; suggestions for integrating the broadcast instruction and the class instruction.

In broadcasting to schools the active participation of the local classroom teachers is so important that perhaps it is wrong to refer to the speakers at the microphone as broadcasting teachers. It might be better to call them radio assistants to the classroom teachers. There are a few enthusiasts who seem to think that the whole job of teaching may be done over the air, but most educators regard the classroom teacher's active, intelligent participation as essential to the success of practically every radio lesson that is intended for school use [23, p. 9; 65, p. 2].

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The broadcasting teacher is expected to prepare outlines of the forthcoming lessons, guide questions, review questions, references for collateral reading, suggestions as to materials and equipment needed in connection with each lesson, suggested projects intended to synchronize the radio lessons with the regular instruction, a profusion of illustrations, and a clear-cut statement of the objectives of the lesson.

Without these aids in the school some time in advance of the broadcast, teachers and pupils could hardly be expected to be prepared to cooperate in making the radio instruction effective [23, 65].

The following aid-to-study material to be used by teachers and pupils in connection with the art appreciation lesson of December 2, 1931, has been taken from the American School of the Air Teachers' Manual and Classroom Guide:

THE WHISTLING BOY

Cincinnati Museum of Art: Frank Duveneck

(1848-1919)

The Whistling Boy is painted in Duveneck's simple direct style. This work, although it is a happy, active all-boy portrait, possesses dignity and calm. We see here the artist's immensely vital construction of the head, on which he has concentrated. The entire figure is drawn with direct brush handling, giving a vitality to his technique by expression in large planes. Although this and other of his works seem to have been "dashed off" (so vividly and simply did he paint), this Whistling Boy is full of character and, at the same time, has an astonishing luminous quality.

Frank Duveneck was born in 1848 in Covington, Ky. During his 3 years' work at the Royal Academy, Munich, he was awarded many prizes. In 1878 Duveneck opened a school of his own in Munich and strongly influenced the American students who were studying there. For many years following the loss of his wife he was unknown to the public, quietly teaching in Cincinnati. However, at the San Francisco Panama-Pacific Exposition in 1915 he was given an entire room for the exhibition of his works. This honor was given him because of the inspiring aid he had given American art students.

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Chums, by *Francis Jones*—Artext Print & Jr. No. 165.
Neopolitan Boy, by *Mancini*—Artext Print & Jr. No. 180.
Little Rose, by *Whistler*—Perry Pictures No. 1010E.

MUSIC

Wand of Youth (suite), by *Elgar*.
The Lonesome Whistler (for orchestra), by *Guion*.

SUGGESTED QUESTIONS

What kind of work do you think this boy does?
How old do you think he is?
Where is the strongest light?
What makes it seem even more luminous?
Why do you think the boy is happy?
Can you whistle?
Does one whistle when he isn't happy?

In addition to the teachers' manuals, pupils' textbooks have been prepared to be used in connection with the Cleveland broadcasts in arithmetic, NBC Music Appreciation Hour, certain courses of the American School of the Air, and the WMAQ Summer School of the Air. This forward step should extend and facilitate listeners' use of the broadcast lessons, and thereby materially increase the value of the broadcast service.

In broadcasting to schools the administrator of the school of the air must assume the responsibility of disseminating information designed to assist classroom teachers in making proper use of the broadcasts. The classroom teacher has the responsibility of deciding [i] what broadcasts she will have her pupils listen to; [ii] how the radio lessons are to be fitted into the regular school work; [iii] what mechanical aids she will need and how they are to be used; [iv] how to create the proper mental attitudes of the pupils toward the broadcasts; [v] what subject-matter preparation the pupils should make; [vi] what listening conditions should prevail; [vii] what assistance her pupils will need; and [viii] how to merge the program with the curriculum of her school. Through press releases, broadcast announcements, aids-to-study, and conferences the wireless teacher can be of assist-

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ance to the local teacher in meeting nearly all of her responsibilities in connection with the radio lesson.

Adult Listeners

The vast majority of adult listeners receive the broadcasts in their homes under conditions which frequently are not conducive to serious mental endeavor. This fact must be considered in planning educational broadcasts for adult listeners. It is also well to remember the importance of discussion in a teaching-learning situation. Review is essential in all good teaching. This maxim applies with special force to teaching by radio, where transient auditory impressions are the chief element. It will be necessary to revive and clarify these impressions if the broadcast stimulates thinking and the carrying out of projects. Home listening is suitable for indirect learning where no great amount of preparation or mental effort is involved. But discussion group listening has been recognized as more desirable for purposeful learning involving considerable mental effort and various related activities.

There are a number of difficulties and limitations in teaching by radio which make it highly desirable that the broadcasting teacher and the local group leader work closely together in overcoming the difficulties and supplying the deficiencies in the radio instruction. This involves the necessity for freedom in the exchange of ideas between the broadcasters and local cooperators. Regular reports from listeners, group conferences, visits to discussion groups, visits to studios, and research are important means of overcoming these limitations.

It is the responsibility of the broadcast administrator to encourage and assist local listeners to organize themselves into discussion groups. These groups usually meet in some convenient place, usually at a library or a school. They listen to the broadcast and discuss it afterwards. The discussion must be of sufficient interest to induce the individual to come to group meetings.

The suitability of the group leader is the determining factor in the success or failure of the discussion group.

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Realizing the importance of the group leader in educational broadcasts for adults, the British Broadcasting Corporation has been employing field representatives for several years to assist local leaders in organizing and conducting group discussions. During the past two or three summers, summer schools for group leaders have been conducted by the British Broadcasting Corporation. The British plan of organizing discussion groups has spread to several other countries, including the United States.

The League of Women Voters has been eminently successful in organizing listening groups to receive the broadcast on political education by that organization. These groups not only listen in but also offer their criticisms on the program for check-up purposes.

During the winter of 1931-32 Rutgers University broadcast a Mother and Son series over radio station WOR. The New Jersey Congress of Parents and Teachers organized a number of discussion groups in various parts of the State to listen to and discuss the broadcasts and practical questions arising in connection with this series. Reports indicate that this plan worked out very well.

Profs. V. R. Sill and P. B. Zumbro, of the Agricultural Extension Service of the Ohio State University, conducted an interesting experiment in group listening during the spring of 1932. In cooperation with various county agricultural agents listening groups were organized and film strips were supplied to be used to illustrate the subject being broadcast. The broadcast instructor used a film projector in the studio as he broadcast over radio station WEAO to the listening groups, who observed similar pictures as they were projected on the screens in the various group meetings. Reports of this plan of combining visual and auditory impressions at group meetings were very favorable.

Voluntary discussion groups were organized in various parts of the country during the winters of 1931-33 to listen to and discuss the broadcasts of the National Advisory Council on Radio in Education. Public libraries and the various national organizations cooperating with the National Council were very helpful in giving publicity, preparing aids-to-study, and encouraging group listening.

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Dr. Levering Tyson, director of the National Advisory Council on Radio in Education, states that the council was aware from the start that merely putting educators "on the air" is not necessarily education. Dr. Tyson continues: "Admitting that special teaching techniques must be used in front of the microphone, the determination and development of which are huge problems, there still remains the very necessary tasks of [i] assembling listeners who can enjoy the benefit from the programs; [ii] providing them with basic minimum material for making reasonable use of what they hear in the programs; and [iii] suggesting ways in which, and material by means of which, the broadcasts can be made of permanent and lasting educational value. Every dignified publicity means is employed to make known the availability of the authentic material which the council produces in its programs, subject only to the limitations of the council's financial resources."

He continues:

The press is informed through the publicity departments of the broadcasting companies. Magazines and periodicals, particularly popular reviews, the professional educational papers, are notified through the council office direct. In addition, printed announcements in the form of bulletin-board posters and leaflets are sent out by the council to all educational, civic, and professional organizations which are likely to be interested at all in the subject matter of the material to be broadcast. By use of these mechanisms an audience is built up which is limited only by the extent of this preliminary activity.

The council committee prepares a listener's handbook or notebook containing subject-matter outlines, information about speakers, dates, references, and other educational aids. The council enlisted the active cooperation of the American Library Association, which not only assists in compiling book lists and suggesting collateral reading but also keeps its constituent member libraries informed of the progress of programs and suggestions as to how programs can be followed up educationally. "The council," says Dr. Tyson, "has also made an affiliation with the University of Chicago Press whereby programs are put into permanent printed form and supplied to listeners at absolute cost. At the conclusion of the series the programs are printed in volume

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form and made available as textbooks. Plans are under way for electrically recording all programs."

Dr. Tyson in discussing other means of enlisting and assisting listeners, says:

Group listening is encouraged wherever possible, although the council has not as yet been able to undertake any comprehensive campaign to develop it. For example, the series, "American Labor and the Nation", broadcast over approximately 60 stations of the Columbia Broadcasting System, was designed definitely for the use of labor unions, of which there are approximately 30,000 throughout the country. There is evidence to indicate that a large number of these labor organizations listened regularly to the programs in this series. For group listening the libraries have frequently made space available, and in a large number of cases have supplied leaders and individuals who can and do provoke and incite discussion of the subject matter of the program.

In the furtherance of this group work the assistance of educational, civic, and professional organizations has been of particular value. In most cases these associations or societies have means for assembling their memberships. When the subject matter of the broadcast is of public concern it is relatively easy to engage their interest and assistance.

In conclusion, many different means have been used to enlist and assist listeners. Educational broadcasts involve the need of both preparation and follow-up activities on the part of listeners. Although favorable publicity, skillful broadcasting, and timely subject matter will do much to insure the success of educational broadcasts, nevertheless special aids-to-study and local cooperators remain a necessity in systematic instruction by radio. The vast expanse of unknown areas in this new and fascinating field challenges the ingenuity of educators and broadcasters of educational material to determine how the broadcasts can be made of permanent and lasting educational value.

★ V ★

**PRESENTATION OF THE
BROADCAST**

*The manner of speaking
is as important as the matter.*

C H E S T E R F I E L D

ALMOST everything included in this chapter on the actual presentation of the broadcast might very appropriately have been included in the second chapter on the preparation of the broadcast. The matter of delivery should be so well in hand before the broadcast that it can be relegated to the fringe of consciousness as the broadcaster focuses his attention on the thought he is presenting. Ideas, not merely words, must be communicated to the audience. The preparation should be sufficiently thorough that the performer need not be disturbed about diction, position, or anything else but the part he is playing. The program should be rehearsed to such an extent that there is no hesitation or lack of confidence on the part of those participating. This chapter is intended to set up some rules to be observed during the broadcast.

It is difficult to suggest specific directions for broadcasting, since so much depends upon the personality of the speaker and his individual style. Just as some teachers make an educational subject interesting and others do not, some broadcasters are naturally interesting and others are not. Some experienced speakers can keep to the original timing and have more spontaneity by using carefully prepared notes.

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Other equally effective broadcasters follow their manuscripts verbatim even though they have rehearsed them until they have practically memorized them.

Even though delivery should not be the focal point of attention of either the broadcaster or the listeners, it is of paramount importance, since the voice, and the voice alone, is expected to give the message effectiveness. Therefore, it is not out of place to analyze delivery, as it is of even greater importance in broadcasting than in classroom lecturing or public speaking. Although not mutually exclusive, delivery may be considered under the headings of [i] attitudes, [ii] microphone technique, and [iii] diction. They will be considered in order.

Attitudes

Back of the delivery itself are certain mental attitudes that the speaker needs in order to interpret the broadcast properly. He must be able to visualize his audience, banish affectation, and think anew the thoughts of the broadcast as he delivers it in an unassuming, intimate, natural, delightful manner [12, p. 934; 63]. Let him think of the microphone as a sensitive-cared person, fairly close to the speaker, whose ear the speaker does not want to offend [12, p. 934; 63].

Cooperate closely with the station management * It will prove to be mutually advantageous for the broadcaster to work in close harmony with the station management during the broadcast as well as during the preparation for the broadcast.

Program directors point out that the broadcaster should be on hand and have everything ready for the broadcast 15 or 20 minutes in advance of actually going on the air. Punctuality is of extreme importance. The announcer in charge of the program should be notified immediately when the broadcaster arrives.

The announcer and operator should do everything they can to make the speaker or artist comfortable and at ease. The studio should be properly heated, ventilated, and available to the broadcaster at least 15 minutes before he is to go on the air. If the broadcaster wants to stand, let him stand.

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If he wants to sit, let him sit. If he desires to work in his shirt sleeves, by all means permit him to do so. Sometimes a speaker will want some one to sit in the studio across from him as he broadcasts. Most stations will permit visitors to be in the studios under these circumstances, provided the visitor observes good studio decorum—which requires that the visitor remain quiet and not move around or leave the studio during the program.

The microphone should be placed in such a position that the speaker can see the announcer or the control operator during the broadcast. Periodical confirmation of the quality of the broadcast by the control operator, the announcer, or the production man is desirable. Code signals need to be understood, and only one person should communicate with or direct the artist or speaker during the broadcast.

Assume a friendly, respectful attitude toward the listeners ★
Mental contact leading to confidence on the part of the individual listeners must be established. "Confidence," says B. A. Fenner, "is the secret of broadcasting, whether for sustaining or commercial programs." A friendly, respectful attitude tends to build confidence. Sir Walford Davies says that minds held in common must be mobilized on both sides of the microphone, and that, above all, the broadcaster must hold fast to the faith that the common mind everywhere is ready to take delight in simple beauty in music, or in simple truth in a talk, or in any high exercise of the heavenly faculty of imagination, with which every ordinary man, woman, or child on God's earth seems to be endowed [25, p. 129].

A dogmatic, domineering attitude on the part of the broadcaster is not likely to gain confidence. Political broadcasts frequently defeat their own purpose by trying to force conclusions upon the listener. The broadcaster can submit the evidence and appeal to the listener to judge for himself what the conclusions should be. He should make a definite mental appeal to the listeners, but leave the conclusions to the listener's own intelligence.

The broadcaster should remember that each listener is in his own home and will listen closely if he is talked to as an individual rather than as a member of a tremendous audience.

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If the radio speaker will imagine himself holding a conference with someone across the office desk—someone whose opinion he respects and wants to impress—this attitude will lend an attractive ease and a spontaneous, intimate, and personal story.

According to Prof. J. C. Jensen, a genuine interest in the unseen audience and a lot of enthusiasm were the characteristics of Nebraska Wesleyan University's most successful radio instructor [47].

The consensus of opinion indicates that a normal conversational tone with a sparkle of informality is more conducive to building confidence than a platform or academic style of delivery. Preachment, advice, and generalization should be minimized. The message should be humanized and personal applications made frequently. In actuality broadcasts the listener should be made to feel that he is with the speaker and seeing what the speaker sees.

When the occasion warrants, the broadcaster should speak in a straightforward manner with conviction. Since he wants to persuade rather than command, however, he should not be dogmatic or too positive in his viewpoint.

He should correct immediately any mistake he makes just as he would if the listeners were present. Other pitfalls to be avoided are a superior attitude, overacting, and a patronizing, affected manner.

*Think the thoughts and live the part while broadcasting **
"The most deadly faults in broadcasting are to let listeners get the impression that you are simply reading a manuscript," says Dr. Frank F. Nalder, of the State College of Washington. The subject should be presented in an impressionistic fashion which strikes the imagination of the listener and provokes his creative activity. The broadcaster should be able to communicate his enthusiasm to the listeners by projecting his personality over the air. The audience can detect the subtle difference in phraseology between the written and the spoken word. Besides the actual difference in pronunciation, the written word lacks vitality and authority [68, p. 178]. Mechanical reading will not create the impression of naturalness and sincerity which are valuable

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attributes on the air [59] B. H. Darrow says, "Do not iron out flat. Leave in the pauses, changes of speed and pitch that make conversation more attractive than reading."

Natural ability is the first requirement in broadcasting. No set of rules can produce it. If the broadcaster is blessed with a natural poise and clear-cut speech, he should be natural. Otherwise, he should try to overcome the difficulties that interfere with his broadcasting effectiveness or stay off the air.

Gosden and Correll point out that the broadcast should be natural, human, and simple. They say:

In radio we as Amos and Andy first of all try to be natural. We never use any phrasing or words the meaning of which we think some few might not clearly understand. Even in the continuity we write for the announcer giving the synopsis of the episode or a brief of what has gone before, we make it as plain as possible, bearing in mind that we are catering to the masses.

There is nothing further we could tell you about radio broadcasting other than when the speaker is before the microphone he should be natural and human. Occasionally when some physician or public speaker gets before the microphone after he is introduced he will clear his throat in the face of the radio audience before starting his talk. His next remark is "Good evening, ladies and gentlemen," and then he tightens up, overemphasizing throughout his speech.

Our personal idea of a good educational program is one with many interesting facts and true incidents of interest injected into the talk, with the speaker giving us the impression that he is leaning back in a big overstuffed chair, with his feet on the ottoman, talking to us in our own library.

Radio must present ideas in a living fashion. A realistic and colorful delivery adds to the attractiveness of the broadcast provided it seems natural. Every speaker has a style of his own. If the speaker's delivery naturally varies in regard to speed, stress, intonation, etc., he should be encouraged to utilize these variations. If not, any attempt to force a varied style is almost certain to create an affected delivery. Affectation, as well as dullness, drives listeners away.

A sense of the dramatic which enables the individual to make the most of his personality as he lives the part he is presenting may be called showmanship. If so, showmanship is essential in broadcasting. The real showman can conform

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to the best practices in delivery without permitting the thoughts of microphone technique, diction, etc., to become a complex that will destroy his naturalness. After all, the thought of the radio speaker must be on the ideas he is presenting during the broadcast and not on the method of presenting the ideas.

Microphone Technique

Microphone technique is an expression that has grown up in broadcasting circles to describe the proper use of the microphone as to position, volume, pitch, avoidance of extraneous noises, etc. In a leaflet entitled "Getting Acquainted with the Microphone," the Columbia Broadcasting System points out the microphone which picks up the voice of the speaker as a very sensitive instrument. Its improvement from year to year only tends to make it more sensitive. The slightest sound, even one that is almost inaudible to the speaker himself, is picked up by the microphone and amplified in transmission so that the sounds intended for the listeners may be clearly reproduced in the homes of those who make up the radio audience [36].

The limitations which the microphone imposes upon the broadcaster tend to make him "mike conscious". The mastery of the art of broadcasting implies that the speaker has learned to perform in front of the open microphone in such a manner as to produce the desired effects upon the audience. This section will be devoted to a discussion of some of the rules to be observed in mastering the microphone.

Avoid extraneous noises ★ The microphone magnifies some qualities of the voice and amplifies certain extraneous noises [51, p. 267]. Many interesting instances might be given of the effects of studio noises on listeners. Lawton relates an instance that occurred during the early days of broadcasting. Radio station KFI at Los Angeles received an appeal by mail from Cuba, "For heaven's sake, turn off that faucet; I hear that dripping of water every time you put on a program and I tune in." An examination of the studio revealed a leaky water tap [51, p. 267]. Eliminate all interference possible. Carpenter gives an instance of an

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orchestra leader who believed himself unfortunate in that his orchestra was forced to play classical music only in the hotel dining room where they were working. This type of music was not conducive to applause, but he felt that applause was needed to impress his invisible audience. He solved the difficulty by having several members of his orchestra gather closely around the microphone and click their teeth as loudly as possible. This sounded very much like hand clapping to the radio audience [15, p. 25].

Sudden loud noises such as coughing or sneezing blast the microphone. Heavy breathing, walking, the rustling of a manuscript, keeping time with the feet, the clearing of the throat, lip noises, tapping on the microphone or a table, even the clicking of the finger nails or the rubbing of a careless finger over a half day's growth of beard may completely confuse the audience. One program director recommends a pinch of salt to loosen the throat just before entering the studio [47: 51, p. 262-264].

Often, for a brief period before the speaker begins his address and after he has finished, the microphone is open and alert. During the time the microphone is open, the instrument itself, the standard on which it rests, and the cables running to it should not be touched in any way. Absolute silence should be maintained. A red light or some other signal is used in nearly all studios to indicate when the studio is on the air [36].

Master the microphone ★ The statement "master the microphone" is used to denote skill in adjusting one's position in reference to the microphone to facilitate the hearers' getting the correct understanding of the broadcast. For example, J. E. Bryan, general manager of radio station KTAT, gives the following suggestions:

To arouse excitement, stand back 5 or 6 feet from the microphone and raise the pitch of the voice and increase the rate.

To command attention, raise the head slightly and speak with gravity and authority.

To elicit sympathy, stand close and practically murmur—but distinctly.

To develop loyalty, speak in a kindly, quiet voice near the microphone [36].

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The proper position of the speaker before the microphone depends upon the acoustical characteristics of the studio, type of microphone used, and the character of the voice. The acoustical characteristics of a studio are materially affected by atmospheric conditions. Sometimes it is necessary to arrange the various instruments in the orchestra after the final rehearsal because of atmospheric changes. Station managers are learning to appreciate more and more the importance of suitable atmospheric conditions in the broadcasting studio. Proper temperature, ventilation, humidity, etc., not only contribute to the comfort of the broadcaster but also improve the transmission [36].

Engineering improvements are being made constantly in microphones which increase the fidelity of tone reproduction and affect microphone technique. Microphones have been developed recently that will pick up the speaker's voice satisfactorily 6 or 8 feet away. This gives the speaker more freedom and thereby facilitates naturalness. The lapel microphone which proved to be a technical success at the Democratic National Convention brings several innovations, especially for actuality broadcasts and dramatic productions. By means of the small microphone attached to the speaker, or to a page who moves from speaker to speaker, more freedom of movement is insured, eliminating the ever-present "mike consciousness," and raises the possibility of better outdoor broadcasts with natural sounds [36]. Recent experiments with the nondirectional microphone, indicate that engineering developments may greatly increase the freedom of the broadcaster with reference to the position of the microphone.

Actual experimentation with the cooperation of the radio-station staff is necessary to determine suitable distance and angle of the speaker from the microphone. The type and nature of the speaker's voice is an important factor in determining proper placement of the speaker. The broadcaster should learn to perform with freedom and ease within the prescribed limitations of the microphone as determined in rehearsal. Fortunately the technical operator has considerable control over the transmission. This should relieve the

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broadcaster of much concern while on the air. If the performer is comfortably placed, with the microphone at the proper height and distance from him, the transmission can be left very largely to the operator as the broadcaster gives his full attention to the thought of the broadcast.

Sutton points out that a speaker with a good broadcasting voice—clear, resonant without a nasal or metallic twang—may stand close to the microphone and talk intimately into it; and that a speaker with a voice of less pure quality gets a better effect by standing at right angles to the disk and speaking across it [87, p. 323]. The volume of voice that the speaker may use varies with the distance from the microphone. As the volume of the voice is varied, the speaker moves back and forth from the microphone. Unlike stage delivery, where the speaker steps forward and increases the volume to emphasize a point, broadcasting requires that the speaker either step back from the microphone and raise his voice, or speak very close to the microphone in warm, intimate tones when he wants to stress a point. Sudden changes of the direction in which the broadcaster is speaking affect the volume. Crowding or overloading the microphone, as well as getting beyond its range, should be avoided. Weaving about and turning of the head away influence the pick-up.

Precisely how the voice comes over depends also upon the way in which the operator controls transmission. Too much current destroys the overtones; too little gives only the fundamental vibrations. The galvanometer in the control room is calibrated from 1 to 60 points, and the speaker should control his voice so that the needle fluctuates between 10 and 20. The rasp of the metallic voice and the twang of the nasal are always magnified. When the current of transmission is too great, they come over with ear-splitting harshness [13, p. 350-351; 87, p. 323-324].

Annette Bushman, who has had extensive experience in directing dramatic productions, gives an interesting account of some of the technical problems to be considered when a radio drama is being properly produced. She says:

An actor unfamiliar with radio finds it difficult to acclimate himself to this somewhat strange medium. On the stage he must project his voice so that he can be heard in the last row of the second balcony. On

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the radio the last row in the balcony becomes the first row in the orchestra. If he attempts to project farther than the first row, he "blasts"; that is, he uses so much volume that his voice is just a raucous noise. . . . The actor must "trick" his voice to register correctly on the galvanometer and still maintain the emotion and feeling of the character which he is playing. He must stand only 8 or 12 inches from the microphone; if he is farther away than this, we still may be able to hear him distinctly, but, in the terms of the theater, he is not center stage. Sometimes this is desirable, but we must keep in mind the effect to be produced. If the action of the play demands that an actor speak from a door or a window, he will back away from the microphone, using a slightly higher pitch in voice, and deliver his line to the person at the "mike." If the listeners are to "see" the actor make the movement, he must move while speaking, and raise his voice in slight crescendo. Entrances are made 6 or 7 feet from the "mike"; the actor starting with his voice pitched higher than usual will gradually walk into the microphone, lowering his voice in a gradual diminuendo until he arrives at the "mike." If the listener is to see the actor move, the actor must always keep talking as he moves, for if he makes a pause in his lines while he walks it may sound like two different voices.

In a mob scene in the theater the actors top the noise in the background by projecting their voices above the noise. Quite the opposite is true on the radio. Two actors, speaking in ordinary tones, 6 inches away from the microphone, will be heard above any noise made by the mob in the background. Unfortunately, the natural instinct of the actor at the microphone is to raise his voice above the mob; but his scene must be rehearsed over and over again until this defect is remedied [13, p. 350-351].

If more than one person is in the broadcast, or if musical setting or sound effects are used, particular attention should be paid to the microphone set-up. In radio conversation between two speakers the broadcasters can stand or sit close together on opposite sides of the microphone and then forget it. In case more than one person is using a microphone no one should appropriate it to himself. The balance of voices should be considered when different participants have fixed positions in reference to the microphone. One program director reports an instance when four persons were speaking at a long table. A very bad effect was created by having two gruff, heavy-voiced men in the center near the microphone and two feeble-voiced women at the extreme ends.

Vary the rate of delivery according to your own style and the thought being expressed ★ It should never be so rapid as to

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prevent distinct enunciation. Regarding the rate of delivery, Borden considers an average rate of about 165 words per minute as being most effective [51]. While a brisk rate of delivery, provided the enunciation is good, is more likely to hold the attention of a radio listener than a more deliberate rate, other writers are of the opinion that 165 words a minute is a little too fast, especially for instructional purposes. Clark recommends 140 to 160 words [47], and Lawton says that the only blanket rule that can justifiably be made with regard to the rate of delivery is that the speaker should talk as briskly as is consistent with good enunciation and proper employment of the *variety stimuli*. He thinks it should lie somewhere near 135 or 140 words per minute [51, p. 270]. This is considerably slower than Lowell Thomas or Edwin C. Hill speaks.

According to Dr. Hillis Lumley, of the Bureau of Educational Research of the Ohio State University, news broadcasts are broadcast at the rate of almost 200 words per minute; educational talks for adults about 160 words per minute. The rate for a small sampling of school broadcasts was 170 words per minute. Of course, the rate varies with the material and the audience being addressed. The rate should be somewhat slower for children than for adults. The same instructor who would speak at the rate of 140 words per minute, when he was telling some interesting story, might drop to 90 words per minute in giving directions for the listeners to follow. The broadcaster should be deliberate in order to be at ease, but not slow enough to appear lazy. Of course, if slowness is overdone, the delivery will sound stilted. For instructional purposes the thought must be attuned to the powers of perception of the listeners. The tempo and pitch of the voice should be suited to the idea being presented and the personality of the speaker [6, p. 100].

The foregoing opinions are in accord with better practice in broadcasting, but the writer believes that Dr. Burt is right when he says that microphone technique must be made the subject of a scientific investigation rather than be left to the empirical maxims of practitioners themselves [12, p. 933.]

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Diction

Diction, as used by the American Academy of Arts and Letters, includes [*i*] pronunciation, [*ii*] articulation, [*iii*] quality of tone, [*iv*] accent, and [*v*] general cultural effect [47, p. 1]. The term is used here in the same sense. Good diction includes those qualities of voice and delivery that enable the speaker to project his personality through the microphone in such a way that the listeners will be able to understand and suffer the minimum handicap from the lack of the visual presence of the speaker. They should be stimulated to think and act on the subject under discussion. Good diction—an effective vocal exposition—is of paramount importance to the broadcasting teacher, since it must do such heavy duty in instruction by radio. Lambert remarks that speakers with charm of manner and voice may succeed at broadcasting even though they do not have much to say [57, p. 800]. Diction should be pleasing but not overelaborate or stilted. Since it is simply the conveyor of the ideas, it should not detract the attention of the listener from the content of the message.

Too much stress cannot be placed on proper diction. In radio the word and a few supporting sound effects alone must be relied upon. No visual aid or motion is possible. The speaker's diction should be precise without suggesting specific effort. Most good radio speakers talk softly and distinctly.

Pronounce correctly ★ The speaker should pronounce correctly the words he uses in the broadcast and avoid the use of words he is likely to mispronounce. Wrong pronunciation is worse than no pronunciation. Carpenter roughly classifies mistakes in pronunciation under the following types: [*i*] words easily mispronounced through carelessness; [*ii*] tongue twisters; [*iii*] foreign words; [*iv*] foreign names; and [*v*] those words which all of us see repeatedly in print, but which we have never spoken aloud and probably have never heard pronounced [15, p. 41]. Cosmopolitan English, using pronunciation which conforms to the standards of best usage, involves knowledge of the phonetics of English, the ability to use the phonetic pronouncing dictionary. Inten-

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sive study should precede the presentation involving the extensive use of foreign names [87, p. 315].

Perhaps the worst fault in pronunciation and enunciation comes from speaking too rapidly and dropping the voice near the end of sentences. Final consonants, especially *s*, *d*, and *t*, should be watched. The hissing of sibilants executed with a slight whistle is disagreeable over the air. By keeping the tongue as far as possible from the roof of the mouth, the sibilant may be uttered softly. The harshness of the letter *r* may be avoided by giving it a slight roll and almost dropping it at the end of a word [64].

If formulas or important figures are to be quoted, give the listener warning if it is especially desired that he get them. Speak slowly and distinctly in giving the information, assuming that some of the listeners are writing it down. Finally, repeat for good measure. Proper names should be emphasized if important and spelled out if there is a likelihood of their being misunderstood.

Articulate distinctly ★ Clear, clean-cut, crisp enunciation and finely articulated sounds are important in the effective use of the voice over the air [12, p. 933: 47]. Borden says that the importance of speaking distinctly over the radio cannot be overemphasized, but that the speaker should not enunciate pedantically [51]. Fleck states that emphasis should be given to clear, clean-cut enunciation, but not to the extent that the delivery becomes stilted or unnatural [47]. Sutton points out that clear enunciation demands the control of the tongue from the front, the shaping of the syllable in speech, without mouthing or jawing or using the back of the tongue [87, p. 315].

In speaking clearly it is necessary to open the mouth well. Tone vowels should be held and final consonants cracked off crisply and clearly. Lazy lip motion creates an at-ease attitude, but leads to poor articulation of certain sounds. For example, the letter *w* becomes dub-u instead of double-you.

Writers point out that the broadcaster should be capable of shading the voice to meet the requirements of the manuscript. Important points should be emphasized and climaxes approached with a rising inflection of the voice. The speaker

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should not become so enthusiastic, however, that he slurs his words and runs his sentences together; neither should he let his voice trail off at the end of sentences. Special modes of enunciation, such as dialects and other speech variations, should never be permitted to interfere with the clearness, forcefulness, and the pleasingness of the message.

Use a pleasing and natural tone of voice ★ The National Voice Technique Committee recommends that the speaker strive for an average pitch of low middle range [51]. Van Campen considers that Graham McNamee has thousands of admirers because his wonderful voice, full of melody, friendliness, enthusiasm, and sincerity, is a flexible instrument that conveys every light and shade of feeling and thought [6, p. 19]. The words: Good, pleasing, clear, are frequently used by local teachers and principals in describing desirable radio voices. Other descriptive terms used include: Strong, buoyant, soft, low-pitched, well-modulated, well-directed, heavy, audible, convincing, attractive, full, expressive, earnest, magnetic, flexible, deep, natural, live, friendly, low-toned, warm, sincere [64]. The words: Rough, harsh, raucous, squeaky, shrill, high, sharp, tense, throaty, clacky, flat, explosive, jerky, rasping, are used to describe undesirable radio voices [64]. Shouting, shrill intonations, and superior tones are objectionable.

There is considerable variation of opinion regarding the improvement of poor radio voices. Campbell says that if a prospect's voice line is erratic there is little that can be done about it [6]. Clark [47], Bushman [13], and Van Campen believe in voice training for broadcasting. Good health and vitality are of great importance, as fatigue and nervousness show quickly in the voice [87, p. 316].

The tone of the ideal radio talk is not the tone of the public address. The radio talk has a friendly, intimate tone. It makes the listener feel he is being visited with rather than lectured at.

Emphasize important points ★ Accent or emphasis is an important factor in instruction by radio. Through meaningful variations in pitch and rate of delivery, changing inflections, volume, etc., the invisible speaker interprets his thoughts to

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the listeners. If his emphasis is properly placed, his broadcast will be meaningful and effective. If his emphasis is not properly placed, confusion and dissatisfaction will result. Some pitfalls to be avoided include the affectation of so-called English or Oxford accents, colloquialisms and sectional speech [47].

Learn to appreciate the general cultural effect of good diction ★ Good radio diction will eventually teach us how to produce the proper kinds of voice, whether it be for the theater, the concert hall, or the school. With the increased use of the radio in the classroom will come the increased demand for improved speech, and this in turn will improve the speech of the whole Nation, for the radio is in the nature of an acid test. It is to the ear what the microscope is to the eye. It is devoid of all make-up and accentuates the qualities of the voice [13, p. 353].

The radio drama may be used to illustrate the importance of good diction. From the voice over the air the listener must receive detailed interpretations of characters and situations. Since the flashing eye, wrathful mien, and the like are hidden, the tonal colors must paint the yellows of jealousy, the vermillions of violence, the somber grays of sadness, and the joyous riot of bright splashes of gaiety. The voice colors must create the atmosphere in order that the listener may create the necessary mental pictures which provide the boundaries of the action of the play [71, p. 178]. Besides the importance of good diction as the vehicle for carrying effectively, its tremendous general cultural effects are almost inestimable.

From the foregoing consideration it will be seen that prospective broadcasters may need considerable practice to master the techniques in successful broadcasting. The feeling of closeness in the studio, the strangeness of the medium, and the feeling of the importance of the occasion frequently cause the novice to suffer from "mike fright." In the early days of broadcasting many amusing instances of "mike fright" occurred. This malady affected experienced public speakers just as often as it did others [15, p. 29]. Kennedy says that mother wit is the only thing that can

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save a speaker if he is struck by "mike fright". Any person who has not practiced until he feels perfectly at ease before the microphone may be struck dumb at any moment [47].

To offset the danger of "mike fright" and to improve the broadcasts, more and more time is being given to preparation. Lambert says that there should be a gradual raising of the tests which would-be speakers may be expected to pass [57, p. 800]. The National Advisory Committee on Education by Radio states that a whole department may be required for preparing manuscripts and conducting rehearsals to develop proper voice and manner before the microphone [1, p. 75]. Neels recommends that broadcasting teachers should be selected with infinite care and should receive most careful training for their important work [60, p. 233].

Hints for Greater Effectiveness

Make the introductory announcements concise and appropriate to stimulate interest in the broadcast ★ It is the announcer's responsibility to introduce the speaker or artist and the subject. In his discussion of the mission of the announcer, John L. Clark, program director of radio station WBZ, says:

You are the prelude, the interlude, and the postlude; you are the scene painter, the vocal framework. You might liken your speech to the mortar that binds together the masonry of entertainment, making of it a solid whole. This simile carried further gives an indication of the proportion of announcing to feature. The strongest masonry is that which is bound together by thin layers of mortar.

No matter how modern, how perfect the equipment and performance of the station, the excellence of its features, a poor announcer can spoil everything [18].

Since the introduction is intended to stimulate interest in the program in a very short time, it should be exceedingly well done. The broadcaster should supply information to be included in the introduction and check the announcement before it is made. In this way he can make a good beginning which contributes in a significant manner to the success of the broadcast.

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Use a smooth, yet intimate and animated, style of delivery with a pleasing variety of pitch and intonation appropriate to an accurate portrayal of the ideas being presented ★ Smoothness in delivery should not be interpreted as even-flowing, monotonous presentation with well-rounded sentences. Not at all. It does imply, however, that an abrupt, explosive style with extreme frequencies in pitch and clumsy pauses should be avoided. Stammering and hesitation, except for desired dramatic effect in characterizations, annoy the listener. The listener wants to know every minute what is happening. Therefore, cues should be followed quickly and smoothly.

★ Various program directors warn against awkward pauses or "dead air" during a broadcast. They point out that a few seconds of silence over the air may seem like minutes to the listener. There are times, however, when silence may be very effective. Pauses and changes of emphasis can be used advantageously to overcome the disturbing effect of abrupt transitions from one idea to another. Dramatic pauses and an atmosphere of mystery are important aids in creating suspense and firing the imagination in certain dramatic situations. As a rule, however, pauses over the air should be shorter than pauses on the stage. A good pause, properly timed, is much more effective in a radio address than any amount of shouting. The mental reactions of the listener must be studied in order to understand the function of the dramatic pause. Sound is a stimulus which stirs the imagination. The imagination makes use of all five of the special senses. Frequently an appeal to the auditory sense alone makes a stronger appeal to the imagination than if a direct appeal is made to several senses at one time. On this point, Vernon Radcliffe, of the National Broadcasting Co., says: "If you hear a footfall in your darkened room after midnight, you receive a much more violent shock and stimulus than if you see a face, for the reason that the imagination is more easily and instantly stirred. It is a fact, therefore, that radio audiences react much more violently and quickly—provided they react at all."

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Avoid dullness ★ Broadcasters are frequently urged to be natural and at ease when they are on the air. Naturalness that tends to disturb or annoy the listeners should be sacrificed for effectiveness. Natural dullness may be used as an example. Dullness has no place on the air.

A number of writers are of the opinion that the speaker should vary his voice and exercise some freedom as to his position before the microphone. Burt says that in delivering a talk, monotony is the one unpardonable sin. The delivery must be as varied as possible; pitch, speed, stress, and intonation must be continually changing [12, p. 933]. Busse says that a monotonic delivery is a perfectly deadly thing and one not calculated to inspire the radio listeners to continue hearing the lecture. Lawton states that animated delivery can be aided by meaningful variations in pitch, volume, and rate; but that extreme care should be taken that these variations should not become manneristic or uninterpretative [51, p. 268].

Make use of radio manuscript after it has been broadcast ★ There are a number of ways in which the radio manuscript may be used after it has been broadcast. The uses that may be made of it will be determined by the purpose it is intended to serve. For example, a broadcast by Edwin Markham reading his own poems can be placed on recordings or sound films so that the living voice of the poet will be preserved for future generations. The British Broadcasting Corporation finds it desirable to repeat certain important broadcasts at different hours in order to accommodate the different audiences. The discussion of an important public question in a broadcast may be rewritten and used as a magazine article. Press associations appreciate the news value of certain broadcasts and use them as front-page articles. Copies of broadcasts are sometimes printed or mimeographed and distributed among the listeners. The broadcast series of the National Advisory Council on Radio in Education and those of the Foreign Policy Association may be referred to as examples.

This demand for copies of important broadcasts after they have been put on the air has prompted various individuals and groups to consider the desirability of launching a listeners' magazine to include the best of the past week's broadcast

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and announcements of forthcoming programs. It is probable that definite steps will be taken in this direction when economic conditions improve.

At the present time a great number of unknown factors make it impossible to find satisfactory solutions to many of the problems involved in teaching by radio. It is the anxious task of the present age to initiate a new service, to preface the way for genius to solve the problems involved. This may be done by courageously facing the task, by going ahead and making mistakes and profiting from them [25, p. 131]. In broadcasting to schools the classroom teachers will have an important part to play in the ultimate solution of these problems. They are in the strategic positions to direct the reception and evaluate the radio lessons [24].

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BROADCAST SERVICE

In addition to the large number of carefully prepared broadcasts that may be listened to, there are some broadcast series especially intended to assist listeners in improving their diction. For example, Miss Vida R. Sutton for some time past has been broadcasting a series of programs entitled "The Magic of Speech" over the National Broadcasting Company network. This series is excellent on voice training and radio diction. Further information regarding these programs and other broadcasts designed to serve similar purposes may be secured by addressing the stations from which broadcasts are available.

