

COLLEGE AND UNIVERSITY RADIO BROADCASTING
IN 1937

by

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INTRODUCTION

Educational radio broadcasting, as all students of its problems know, is as old as radio broadcasting itself. Colleges already in the field experimenting with wireless were among the first to broadcast the human voice (30). Commercial broadcasters have frequently presented educational programs of merit. And in recent years a number of cooperative efforts have resulted in outstanding programs and have blazed a trail for improved educational broadcasts (40, 62, 100).

Much has been written concerning the problems of education by radio, nearly all in the last ten years, for not until 1929, following a high mortality of college radio stations, did educators become greatly concerned over the situation, and even this group was a minority (31). It was still later, after much bickering with commercial interests, that educators began to realize that some of their troubles lay at their own doorsteps (24, 101).

Many conferences have been held to discuss mutual problems, occasional appeals to commercial broadcasters for suggestions have been made (7), and some definite experimental work on the interrelated factors of program presentation and effectiveness has been done. But for most educators by radio, experience in other fields of education plus hard-learned lessons in actual broadcasting have furnished the main guides.

Classroom methods have, for the most part, been transplanted to

radio, under the assumption that all teachers are successful ones and that all teachers are equally good on the radio. Only recently have the rules of good showmanship, good journalism, and good radio speech, of which the successful radio program is obviously composed (17), been employed to the fullest extent. The making of successful radio talks seems to be the chief problem of educational radio broadcasting, especially in the field of informal adult education.

Eight years of association with a daily college program over a commercial station and an even longer association with journalism has led the writer into this study. The experience has also lent more of a practical than experimental touch to the undertaking. The survey by questionnaire has been aimed primarily at discovering what new steps state colleges and universities have taken toward adopting the most important of approved methods for reaching effectively an adult radio audience.

The technical side of broadcasting has been approached only indirectly, and location in the broadcast band, time-sharing with commercial stations, methods of organizing administration, "freedom of the air," the monopoly question, and the inherent value of education by radio, have not been included. Adequate and recent discussions of these factors may be found elsewhere (31, 40).

BASES FOR STUDY

In 1933 the National Committee on Education by Radio published

"An Appraisal of Radio Broadcasting in the Land-Grant Colleges and State Universities," based on a comprehensive survey of seventy-one institutions (95). With this as a foundation, the writer formulated a program of study based on some of the still unsettled questions covered in the Appraisal. To information gleaned from this study and to experience, has been added, of course, information from readings. Finally, there are the opinions of those in charge of radio work at land grant colleges and state universities who replied to a questionnaire covering many angles of the educational radio field. The writer has aimed to determine what educational and commercial leadership in broadcasting considers the successful practices in radio presentation are, and to measure current practices by these standards, insofar as possible. The author has assumed that those who have published books or articles, or who have addressed radio conferences, or who have done work generally considered as outstanding, have had something of value to offer. The opinions given in the questionnaires may also be considered authoritative. The inclusion of the commercial viewpoint is, of course, justified, for it has long been recognized that the commercial and educational broadcasters working together can achieve greater success in educational programs than can either working alone (2, 7, 11, 40, 63, 91, 108).

The questionnaire mailing list was limited to land grant colleges and state universities because this group represents the bulk of

adult educational broadcasting outside of the commercial field. Of the 38 educationally owned stations in 1936, 20 were operated by this group (30, 31). In addition, 18 once had stations but are now using commercial outlets. Still another group of seven once had stations but do not have them now and are not now broadcasting regular educational programs. Still another group of 14 never had stations of their own but have been and are now using commercial outlets. Since Tyler's report, the number of institutionally owned stations has not changed, but four have been added to the number using commercial outlets.

Of the 20 land grant colleges or state universities having radio stations of their own, 17 replied to the author's questionnaire. Eleven of these replies were complete, and six partially so. Only three institutions having stations did not reply. Of the 33 institutions using commercial outlets, 30 replied to the questionnaire, 20 in full, eight partially, and two unsatisfactorily for purposes of this study. Only three institutions of this classification did not reply. Those replies listed as partial were usable insofar as they went.

Seven institutions which once had stations replied that they are not now doing any broadcasting. Two others which once had stations did not reply, but it was determined from other sources (23, 30) that they were not active in 1937. Two others of the 71 queried stated that they had used commercial outlets at one time but were not now. Another pair stated they had never done any regular broadcasting.

None of the inactive ones attempted to answer the questions. The remaining five not heard from have not, it is believed, done sustained broadcasting.

The return on the questionnaire was, then, 81.7 per cent. This is not surprising when it is considered that the group was a select and highly interested one. Only one follow-up letter was used, though a few requests were made for more information. The percentage of questionnaires usable in their entirety is approximately 52 per cent for the whole group, but for those actively broadcasting it is approximately 70 per cent.

RANKING OF LIMITATIONS

One of the most significant revelations of the questionnaire was the ranking by the respondents of four limiting factors: lack of finances, untrained personnel, insufficient material, and poor equipment. A few other factors turned up in the space left for "other" factors. The order in which these were ranked is not surprising, in view of the repeated expressions of college broadcasters (30).

Twenty-one ranked lack of finances first, 11 of them being station owners, and ten, users of commercial outlets. Only two station owners ranked this factor as third or fourth. Three users of commercial outlets ranked it second.

Untrained personnel was ranked first by four, second by 16, third by three, and fifth by one. Insufficient material was ranked first

Table I. Institutions to Which the Questionnaire Was Sent

<u>Institutions Replying to Questionnaire</u>		
<u>Own Stations</u>	<u>Commercial Outlets</u>	<u>Not Broadcasting</u>
Univ. of Florida	Univ. of Arizona	Alabama Poly. Inst. *
Univ. of Illinois	Univ. of California	Univ. of Alabama*
Purdue University	Colorado A. & M. Col.	Univ. of Arkansas
Iowa State Univ.	Connecticut Agr. Col.	Univ. of Delaware
Kansas State Col.	Georgia A. & M. Col.	Univ. of Georgia
Michigan State Col.	Univ. of Idaho	Mass. Inst. of Tech.
Univ. of Minnesota	Indiana University	Mississippi A. & M.
Cornell University	Univ. of Kentucky	Univ. of Mississippi
Univ. of No. Dakota	Louisiana State Univ.	Univ. of Montana
Ohio State Univ.	Univ. of Maine	Univ. of Nebraska
Univ. of Oklahoma	Univ. of Maryland	Pennsylvania State
Oregon State Col.	Massachusetts State	
Univ. of Oregon	Univ. of Michigan	*own station
So. Dakota State Col.	Univ. of Missouri	
Texas A. & M. Col.	Univ. of Nevada	
Washington State Col.	Univ. of New Hampshire	
Univ. of Wisconsin	Rutgers University	
	Univ. of New Mexico	
	No. Carolina State Col.	
	No. Dakota Agr. Col.	
	Oklahoma A. & M. Col.	
	Rhode Island State Col.	
	Clemson Agr. Col.	
	Univ. of Texas	
	Utah State Agr. Col.	
	Virginia Poly. Inst.	
	Univ. of Virginia	
	West Virginia Univ.	
	Univ. of Wyoming	
<u>Institutions Not Replying</u>		
Iowa State Col.	Univ. of Colorado	New Mexico A. & M.
Univ. of Kansas	Univ. of Utah	Univ. of No. Carolina
Univ. of So. Dakota	Univ. of Vermont	*

*Five others not heard from are believed to be not regularly broadcasting: Montana State, Ohio University, Univ. of So. Carolina, Univ. of Tennessee, and Univ. of Washington.

Other educational stations active in 1937 (23): St. Lawrence U. (N.Y.); St. Olaf Col. (Minn.); So. Dakota Sc. of Mines; St. Louis U. (Mo.); Georgia Tech; Remscheid Poly. Inst. (N.Y.); St. Northbert's Col. (Wis.); Lincoln Mem. U. (Ky.); Grove City Col. (Pa.); Seneca Voc. H.S. (N.Y.); Loyola U. (La.); Benson Poly. Sc. (Ore.); Oklahoma City; Port Arthur Col. (Tex.); John Brown U. (Ark.); Luther Col. (Ia.).

by one, third by four and fourth by nine. Poor equipment, which, of course, is closely associated with lack of finances, as, indeed, the other factors are also, was ranked first by one, second by four, third by six, and fourth by five. Of other factors, lack of interest by staff was ranked first by two; one placed lack of personnel in third position; one placed lack of knowledge of how to communicate ideas fifth; one mentioned interference of commercial programs fifth; one mentioned an unseasoned program fifth; and one ranked the attitude of personnel fifth and lack of space for rehearsals sixth.

Average of rankings: lack of finances, 1.38; untrained personnel, 2.1; poor equipment, 2.93; lack of material, 3.5; other factors, 4.33.

Table II. Limitations Ranked by Radio Program Directors.

<u>Limitations</u>	<u>Number of radio directors ranking</u>						<u>Avg.</u>
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>	<u>6th</u>	
Lack of finances	21	3	1	1	-	-	1.38
Untrained personnel	4	16	3	-	1	-	2.10
Poor equipment.	1	4	6	5	-	-	2.93
Insufficient material	1	-	4	9	-	-	3.50
Lack of interest by faculty . .	2	-	-	-	1	-	} 4.33
Lack of personnel	-	-	1	-	-	-	
Not knowing how to commu. ideas	-	-	-	-	1	-	
Commercial prog. interferences	-	-	-	-	1	-	
Unseasoned program	-	-	-	-	1	-	
Lack of space for rehearsals . .	-	-	-	-	-	1	

FINANCIAL ASPECTS

The financial problem has, of course, been foremost throughout the history of educational broadcasting (40). Inquiries were made in the questionnaire mainly to ascertain whether any institutions have solved this problem and feel satisfied that present budgets are sufficient. Only one institution seemed at all contented with its present budget.

Answers to the financial questions were relatively few, the pocket-book being a somewhat personal matter; however, enough answers were given to form a fair picture of the situation. Eight stations of 1000 watts gave figures showing that they are operating on average annual budgets of approximately \$12,500. They average 40 hours of broadcasting a week. They estimate that they need at least an average of \$52,000 a year. (This figure does not include costs for increasing power.) It should also be noted that there were such wide differences in actual budgets (\$3,500 to \$40,000) and in estimated needs (\$10,000 to \$100,000) that average figures can serve only as rough measures of the general situation. Then, too, the type of programs presented may determine their cost. Where most programs originate in other departments and the station is simply a mechanical outlet, the cost is, of course, much less than where a special station staff is employed to produce programs, or a large part of them.

The financing of program presentations over commercial stations

is not, for the most part, handled separately. However, two reports from managers of programs which have gained wide reputation and regular acceptance on large commercial stations, indicate annual expenditures of at least \$5,000 for a half hour program daily. In these cases practically all the cost is in salaries.

When managers of educational radio stations estimate that they need upwards of \$50,000 to operate a station and produce programs seven hours a day six days a week, they are echoing pleas of the past (11, 39, 55, 59, 96, 97, 110), but falling far short of commercial figures. The Appraisal already referred to shows budgets of approximately \$11,000 each for seven institutions reporting in 1932 (95). In his recommendations, Tyler suggested a budget of approximately \$55,000 for a 1,000 watt station operating eight hours a day (96). In 1934 Sproul (88) noted that a budget of \$10,000 carried with it many limitations. With these figures we may contrast the estimate of Miss Waller, who has long been associated with commercial broadcasting, of \$75,000 to \$100,000 to operate a 1,000 watt educational station on a basis of quality programs that will meet competition (106).

Tyler has pointed out that because educational stations have resources paid for from other sources, operating sums equal to commercial estimates are not necessary. He states, however, that the ability of radio to reach many listeners justifies the expenditure of large sums (94). Miller maintains that really worthwhile educational programs require financing, and that it is a poor boast to point to pro-

grams of little cost (56). A factual aspect of the problem may be found in the radio project of the Office of Education, which is generally regarded as one of the most successful of educational broadcast activities. Here we find that five programs a week require the expenditure of \$150,000 a year (91). The University Broadcasting Council of Chicago carries 12 to 30 hours a month on \$55,000 (40). These figures and the estimate by Miss Waller are in decided contrast to average budgets for educational broadcasting.

The lack of adequate financial support for experimental work in radio broadcasting may also be added to the picture. The need for this has also frequently been expressed (10, 91); it is now being met. In November 1937, Princeton began using a \$67,000 Rockefeller fund in the analysis of radio, starting with research techniques (74). At the same time the National Association of Broadcasters was seeking \$85,000 from its membership to add to two foundation contributions totaling \$167,000 to aid in improvement of educational broadcasting through federal projects (61). Ohio State University also received early last winter a \$69,000 Rockefeller fund for a five-year project in school programs (64). Early in 1938 the Columbia Broadcasting System announced the formation of an Adult Education Board made up of outstanding educators, headed by Lyman Bryson. The board will "try by experience to decide . . . the extent to which formal education for grown people should find a place in balanced program schedules." (22). With this concerted effort to solve the problems of educational broadcasting,

the future has a welcome brightness. Eventually adequate funds may be available for both experimental and established educational programs.

Perhaps it is safe to conjecture that, since budgets of educational stations are so small, they are being efficiently used. It also seems apparent that those stations with the larger budgets are doing the most outstanding work (40). Though further research in this field may help solve the problem, at present the chief means of aiding the uphill struggle lies in increased appropriations, or in gifts or endowments from wealth, or commercial leases, which latter is now resorted to by all educational stations (23). Tyler reported two stations selling time in 1932 (96).

PROBLEMS OF PERSONNEL

Closely associated with financial problems and greatly influenced by them, are problems of personnel. In this study personnel has been classed as (a) the station staff of directors, script writers, and announcers, and (b) the program talent--faculty members who prepare and present informational material. The technical staff, musical groups, and secretarial help have not been included.

Supervision

The writer has sought to determine the average number of hours given to supervision and direction of educational programs. Through the questionnaire it was found that station staffs varied widely in

composition, from part-time direction by one person to staffs of five or six, including script writers and editors. This state of affairs makes accurate comparisons futile. Furthermore, the proportion of music, recorded programs, and the quality of educational features enter in. But even so, a study of man-hours devoted to the direction or supervision of programs reveals some heavy burdens. By dividing the number of persons on the station staff into the hours broadcast per week, it was found that the burden varies from seven hours per person per week to as high as 40, with an average for 13 stations of 23 hours and a mode of 30 hours. A similar application to broadcasts through commercial outlets, where in many cases the supervisor prepares and presents material, or assists in the preparation and presentation, shows an average of about 6.5 quarter hours a week. Here again the spread was a wide one, from one to 18 quarter hours. Seven colleges reported on mail service to commercial stations as their only broadcast activity; and for this group it was found that the average writer prepared material for nine quarter hours a week. Preparation of this material and for programs over commercial stations should be about the same; the difference may be accounted for by the fact that most mail services include or are built on a mail service from the United States Department of Agriculture.

Table III. Radio Broadcast Hours per Person in Direction or Production.

<u>Own Stations</u>			<u>Commercial Outlets</u>		
<u>Hours per Week</u>	<u>App. No. Persons</u>	<u>Hours per Person</u>	<u>Hours per Week</u>	<u>App. No. Persons</u>	<u>Hours per Person</u>
14	2.	7	3	2.5	-1
35	5.	7	3	1.75	-2
51	6.	8 +	1	.33	3
72	6.	12	6	1.5	4
10	.5	20	15	3.	5
21	1.	21	4	.66	6
70	2.5	28	5	.5	10
10	.33	30	6	.5	12
54	1.75	30	6	.33	18
91	3.	30			
35	1.+	30			
71	2.	35			
60	1.5	40			

The writer ventures to draw this conclusion from this field of inquiry: both for college stations and for broadcasts through commercial stations, those institutions generally regarded as doing the most outstanding work (40) are the ones placing the lightest burden on their production personnel. It also appears that the trend is slowly toward a staff of writers or directors trained for radio work and having a maximum responsibility of one program hour daily, a standard suggested by Tyler (96), although his organizational outlines did not include anything but directors, announcers, and clerical help.

Some more recent observations may be added under this heading. Moyer has said, "A great stride forward would be to place more and more responsibility for . . . educational broadcasts upon librarians

newspapermen, magazine editors, public officials and professional artists of the stage and screen." (59). Boutwell notes that "the 26 stations owned and controlled by educational agencies are making rapid strides. . . . Teachers are being detailed to give all or most of their time to radio program building." (63). Green of the British Broadcasting Corporation, tells us that "there are more than two dozen members of the BBC staff in the Talks Department. That number does not include those in the department responsible for educational broadcasts to schools. A further staff of twenty-one is responsible for those." (33). The radio project of the Office of Education, already mentioned, may be cited here; it employs 50 people in the production of five programs a week (31).

Murrow, director of radio talks for the Columbia Broadcasting System, believes that the average 15 minute talk should receive the same time in preparation and rehearsal, if not more, than would be required for a dramatic show of the same length (60). This suggests that the usual educational feature requires many hours of preparation. Miss Philput, of the University studios of KDKA, has stated that a minimum of 15 hours for a 15 minute talk is not unusual with them (70). Hill estimates that a half hour broadcast usually requires eight hours of preparation (40). Ann Salisbury states that he has spent three hours on the revision of a 15 minute interview (82).

Talent

There has ever been a division of opinion as to the availability

of good talent at educational institutions. Some have held the view that colleges have much good talent available for radio programs; others have felt that a lack of talent and direction in program building has accounted for part of the difficulty in college broadcasting (19, 40, 55).

Educational program directors were asked to rate their talent in percentages of good, fair, and poor. Their views will be summarized and then related views of some authorities will be presented. Ratings ran as low as five per cent good, 25 per cent fair, and 70 per cent poor; and as high as 90 per cent good, five per cent fair, and five per cent poor. The average for all 28 replies was 45 per cent good, 31 per cent fair, and 24 per cent poor.

Table IV. Rating of Talent by Directors

<u>Own Stations</u>			<u>Commercial Outlets</u>		
Good	Fair	Poor	Good	Fair	Poor
10%	40%	50%	5%	25%	70%
10	50	40	5	50	65
25	25	50	10	15	75
25	50	25	10	40	50
50	25	25	20	60	20
50	35	15	25	50	25
50	35	15	25	50	25
50	40	10	25	60	15
75	15	10	33	33	33
75	20	5	50	35	15
90	10	—	50	40	10
*46.3	31.3	22.4	65	25	10
			70	25	5
			75	20	5
			75	20	5
			90	5	5
			<u>100</u>		
			*43.1	31.4	25.5

*Averages. For the two groupings they are significantly much the same.

This is only opinion, of course, and must be accepted as such; but the writer feels that some significance may be countenanced. It is doubtful that a tendency to overrate or underrate would run consistently throughout a group this large.

One of the higher ratings carried with it the comment, "Unless they are good, we do all we can to prevent their appearance." This reflects a practice of the British Broadcasting Corporation, whose care in preparing talks programs has already been noted. Green reports, "It is only after very careful consideration of a number of names, and often only after the voices of several have been recorded and heard, that the final choice is made." (33).

It appears that in respect to talent on programs from educational institutions, there is much room for improvement. Only eight of the respondents reported a percentage for "good" talent of 70 or better. The average of 55 per cent fair or poor can easily outweigh the 45 per cent good. It does not seem unreasonable to expect an educational institution to put its very best foot forward. Furthermore, as Cantril and Allport point out (10), the trained speaker is most effective, and effectiveness in educational broadcasts is certainly to be desired. These two investigators also present experimental evidence to show that voice portrays many personality traits which may be reflected in effectiveness. Other standards for radio speaking

have long been established and it should be unnecessary to dwell on them here (2, 12, 20). Attacks on the assumption that any member of a faculty is capable of broadcasting are likewise of long standing (98, 101). Miss Pollard represents a group that thinks that it is unnecessary for the subject matter expert to be the speaker (71).

A loss in authority might mean a much greater gain in effectiveness. Darrow and Hill are supporters of the view that only the best speakers should broadcast (15, 40). They also advocate some form of compensation for radio work, which brings us to another phase of the talent problem.

Compensation. Though these two are not alone in advocating some form of compensation for faculty participation in radio (59, 56, 59, 96) educational institutions have followed the precedent of expecting this work without any compensation in time or money, with few exceptions. Hill doubts that five per cent of institutions compensate speakers (40). The Appraisal shows that at that time two institutions out of 28 gave credit on teaching load and five made cash allowances, and administrators were equally divided over whether or not compensations should be made. The writer queried directors on current practices. There were 38 replies. One institution said "yes" as to paying faculty members for radio appearances, one "plans to do so," one does so "for important exceptions," and 35 say definitely "no." As to compensation by lightening other work, one answered "yes," two said "some," two said "a little," one is considering it, and the rest, 31, "no."

It seems hardly necessary, in view of what has already been said with regard to the time needed to prepare quality programs, to say that the practice of expecting radio talks in addition to regular teaching loads is bound to limit severely the effectiveness of educational broadcasts. If any plan to present on the radio only the best speakers, from the broadcasting viewpoint, is to be followed, to circumvent the poor-speaker pitfall, some means of compensation should be arranged, this writer believes.

Special Instruction. Tyler's Appraisal states that "few of the institutions . . . give special instruction to speakers in writing radio talks." (96). Herein lies a third possibility for improving talent. Hill has stated that "the process of preparing educators for broadcasting has become one of the significant activities of the last several years." (40). This writer asked directors if any classes in radio writing and speaking were held for faculty participants. One of the 35 answering this question said "informally"; the rest, "no."

Others have suggested undertakings of this kind (1, 91). Studebaker lists among great needs the "development of practical training facilities for educators responsible for creating educational radio programs or in using such programs for instructional purposes."

It is interesting to note that recently a conference section surveyed itself and came to the conclusion that "it is possible to train educators and other speakers to make radio speeches acceptable to radio listeners." (76).

Self-Criticism. Another possibility for improvement of talent was suggested to the writer from readings and experience: the use of recording equipment by speakers for self-criticism (111). "Speech clinics" are adopting this practice, and the process for making recordings is not complicated or excessively expensive. The broadcasters surveyed were asked if they had equipment for making transcriptions and if speakers used transcriptions for self-criticism.

Fifteen institutions have transcription equipment and 16 do not. Four stated that speakers used transcriptions for self-criticism, seven said "very little" or "some" or "not enough," and four said "no." This summation speaks for itself.

Transcription for Stations

Since no definite attempt to determine what land grant colleges and state universities are doing toward supplying commercial stations with transcriptions of educational talks was made, what little was incidentally revealed in this questionnaire is more interesting than conclusive. The fact that half the replies stated the possession of equipment for making transcriptions indicates a growing use of this adjunct. Tyler observed that one institution was making transcriptions at the time of his survey.

These paragraphs from a letter from Garland Powell, University of Florida, are more than visionary:

WFUF uses transcriptions which we make ourselves for use over other radio stations in the State to broadcast to public schools in "Our Speech," Child and Adolescent Psychology, as well as Parent Teachers Education.

We are entering the transcription field in a very large way and it is contemplated at the present time that the General Extension Division of the University will transcribe special programs to be used on special reproducing discs, that will carry extension classes to the various sections of Florida.

We are further considering other educational fields, such as in our General College with innovations in education.

The field of transcription use and service has interested educators for some years. Charters suggested research work in the effectiveness of transcriptions several years ago (11). Dixon notes, "It is entirely possible that electrical transcription . . . will play its part in future educational programs." (17). Kaltenborn and Griffith have discussed the value of exchanging recordings of talks among educational stations, Griffith pointing out that he had been urging this practice for some time (35, 45). Angell, director of education for the National Broadcasting Company, says a report, has stressed the use of transcriptions in schoolroom education (24).

The question arises, What of the alleged public apathy toward transcriptions? There seems to be little real proof that such apathy exists (5, 40, 92). However, a recent survey of 150 leading radio editors and critics showed them as divided 58 per cent "no" and 42 per cent "yes" on the question, "Are you prejudiced against a program because it is transcribed, regardless of entertainment value?" (a).

(a). In the Roanoke (Va.) Times, Feb. 27, 1938. p. 32.

Certain it is that there has been such great improvement in recent years in the mechanics of making transcriptions that, were they not so announced, it would be difficult to tell transcribed programs from original ones.

Summary

In concluding this section on "Problems of Personnel" we may note briefly that most educational broadcasting set-ups, whether for college station or commercial outlets, are inadequately manned and that as a result not enough time can be given to insure high quality programs. This time limitation also affects talks prepared by faculty members and is a chronic condition at most colleges. Furthermore, the quality of program talent, by the broadcast directors' own estimates, is none too high, but might be improved by careful selection and training.

PROGRAM MATERIALS

It is intended that this section shall deal with certain aspects of educational program material before it is actually put under preparation. Many of the points covered are ones for which the writer sought opinions for his own enlightenment and guidance. The results reveal trends as well as weaknesses; but this discussion will serve more as a record than as a field of comparison.

Cantril and Allport have stressed the endless novelty demanded in

programs. They add that "there must always be continuous exploration and experimentation." (10). They further state:

The length, the contents, the selection, the wording, the coordination of broadcasts are not now determined primarily, as they should be, by the capacities and desires of the listener and by the intrinsic qualities of the medium, but by special autocratic interests.

Though this statement was made with particular reference to advertisers, it may well apply to educators. Furthermore, the statement goes beyond program materials and suggests several other factors which will be dealt with later in this study. It does, however, form a good summary statement of program production problems. Hill holds such the same views (40).

Van Loon adds the advice that "only the best, and that in small quantities and in supplementary form to regular education offered by our schools and colleges -- that is what we should strive after if we want to render a real service." (103).

Moyer in 1954 recognized that "the time is at hand for constructive efforts toward the development of new educational programs, planned for the general public by people who know what the public is interested in, and most important, by individuals who know how to 'put it over'." (59). Atkinson strikes a similar note when he says "selection is an inherent necessity of broadcast program building, and the principles of selection are and must be based on the selector's idea of his relation to the citizen on the one hand and the listener on the other." (4).

From these comments we gain the impression that educators have used a standard all their own in determining what is to be broadcast by them and have not given much attention to what the listener wants or needs. But this viewpoint of the listener will be postponed until a later section, while we here consider other angles of program material determination.

One is the argument of long standing over what is and what is not educational broadcasting. The most widely accepted definition is that by Charters, though it has been supported and attacked and modified (31, 40, 97). But for the most part, arbitrary though any definition must be, "a program which has for its purpose the raising of standards of taste, the increasing of the range of valuable information, or the stimulating of an audience to undertake worth-while activities," may be accepted as educational. It should be noted that this definition does not obviate interest or even a measure of entertainment in educational programs. A discussion of this interpretation might easily cover many pages, but the writer feels that his views will be sufficiently revealed in subsequent analyses.

Planning

Turning from the subjective to the objective, we introduce a questionnaire result on the query, How is program material determined? Seven institutions leave it to the speakers to determine the subjects they discuss; four have program directors decide the matter; 11 use committees; eight use both the individual and the committee method;

and one reports all three.

To a further question as to which method directors thought most effective, speaker or committee method, 17 listed the committee, three the speaker, and three said both. In this, of course, the opinions were fairly consistent with the practice.

Table V. Practices and Preferences for Determining Program Materials.

	Method of Determining Program Materials				
	Radio Speakers	Program Director	Committee	Speakers & Commit. Methods	All Three
No. institutions using	7	4	11	8	1
Directors' preference	3		17	3	

To the question: Is radio broadcasting coordinated with or entirely separate from resident instruction? 21 replied "separate," two said "partly," and four reported coordination, two of these latter being college-owned stations, two users of commercial outlets. From this it is not to be inferred that the radio work is an entirely separate department at most institutions; rather the inference is that faculty members with, in all probability, full extension or teaching loads, are carrying a large part of the informational features, but as for effective organization and production of programs, it is still largely a "catch as catch can" proposition (39).

On the basis of these reports, the writer sees too much scattered rather than coordinated effort. For one person, even a program director, to determine what thousands are supposed to listen to, is likely

to stifle the broader viewpoint. Tyler and Salisbury feel, however, that administration of radio should not be left to a general faculty committee, the members of which have other primary (financial) interests (39, 96). True, nearly every person is a radio listener, but he is only one. The writer regrets that he did not ask the question, Are listeners represented on the committees? The answers would probably have stated that they were, indirectly but not actively. But when we come later to a separate treatment of audience studies, we shall find that a complete knowledge of the audience is lacking. Certain it is, in this writer's mind, that the speaker-selection of material is the weakest method; and that the more viewpoints that can be mustered in planning programs, the better (83).

A good example of planning by a widely representative committee may be found in the New Jersey Extension Service's garden broadcasts, which have received wide acceptance over the Mutual Broadcasting System, an acceptance few educational features can claim. Lay as well as scientific groups help plan these features: the Brooklyn Botanic Garden, the Garden Club of New Jersey, the Federation of Garden Clubs of Bergen County, N. J., and the Federated Garden Clubs of New York State, Inc. (54). Wisconsin has its committees in which parents, civic groups, teachers and administrators have a voice (53). Similar work could be cited (22, 44, 90, 109). And if this method serves no other purpose, it should be helpful in making the listeners feel that they have a part in the program, a particularly valuable asset to educational programs (39, 109).

More for general information than for significant connection with the main theme of this study, a question as to how far ahead radio directors are able to plan their programs was included. Answers showed a spread from one week to twelve months, with three months as the mode. It is obvious that the nature of the programs must temper this factor. Carefully planned series of general information, or music, can be arranged well in advance, but programs sensitive to changing events, as some agricultural programs must be, if they are planned much in advance, must be frequently changed. As one would expect, the longer planning periods are characteristic of the committee-planned programs.

Closely related to the foregoing question was one seeking to determine whether or not broadcast periods were used to present emergency information, especially for rural audiences, a practice which had been suggested in the Appraisal. Since users of commercial outlets would not have the same opportunity that station owners would have to do this, the answers have been placed in the two classifications. Of stations, nine replied they do, four said "no"; one gives highway safety information, and one the weather forecasts under this heading. In the non-station group, four make a practice of giving emergency information, two broadcast spray notices, and eleven make no effort to include emergency material. The writer was surprised to find that most of those who were not trying to serve their rural listeners in this way were the very ones on whom the duty should fall, the agricultural colleges. This was true for both groups. Perhaps, as already implied, those using commercial

outlets are to be so severely criticised; but even here something of the sort might be done, and the service increased both in interest and value.

Availability

It will be recalled that the original ranking of limitations placed lack of material after lack of finances, untrained personnel, and poor equipment. It is generally conceded that educational groups have at their command a wealth of material (2, 20, 55, 96, 105, 111). However, there is a difference in the writer's mind between material to be had and having it on the radio in suitable form; and the questionnaire carried the question, Is insufficiency of program material, if any, due to lack of time for speakers and others to prepare good program material? or to their inability to adapt material to radio? or to their unwillingness to cooperate? or is such material not to be had? It will be noted that this question covers much ground already covered, but in doing so serves to check on previous points and to crystallize opinions on this one factor, availability of material. Many of those replying to this question, 28 in all, checked more than one of the options. The results show only three holding the view that material is not to be had, five checked "unwillingness to cooperate," 16 checked "inability to adapt material," and 15 checked "lack of time." These totals speak for themselves.

Hindrances

Equally as significant were responses to an invitation to state any other factors considered as harmful to the growth or improvement of educational radio work at the institutions under consideration. Fourteen had comments to make. One noted a lack of interest on the part of the administration; one felt that the administration did not understand the purpose of the radio work and wanted to place too much emphasis on advertising the institution; one finds that the speakers' failure to employ good radio techniques is harmful; one who has charge of both station work and programs over a large number of commercial stations in the state as well, brings up the difficulty of holding established periods on these stations; two note a lack of interest on the part of radio speakers; two blame the policy of no compensation; three feel that an overloading of personnel, with its consequent lack of sufficient time, is vitally harmful; two note a lack of cooperation (in one case even jealousy) between departments; and another finds that this lack of cooperation involves high schools, the state department of education the educational broadcasters and the stations, in relation to programs for public schools. This latter statement suggests another problem to which the writer gave some attention; but it is desired first to consider one other aspect of program materials before taking up special programs.

Balance

An effort was made to determine how program material is divided between information and entertainment, and also, what general types of information were presented and in what proportion. By visiting each station and helping the program directors to classify their programs, Tyler in 1932 was able to tabulate the work at 47 institutions. He found that about 45 per cent of the program time was given over to entertainment composed of music, drama and athletics. He was further able to tabulate informational features under three headings: 7.5 per cent formal education; 23.6 per cent general information; 20.4 per cent farm and home information; and the remainder entertainment plus a small amount, about 4 per cent, commercial.

This writer's efforts along similar lines proved to be somewhat abortive. (Personal visit seems the only sure method (98).) Program directors were asked to analyze their informational features proportionally among agriculture, physical sciences, social sciences, engineering, languages and literature, religion, history, and art; and their entertainment among music, drama, and athletics. Obviously this was an effort to simplify the field for the sake of uniform results. But the respondents were given the option of making the analysis or sending program schedules, since it was thought possible for the writer to make an analysis from these schedules. Most of the directors chose the latter. Because most titles are now so popularized as not to give a

true picture of the material, a good practice but not one helpful in this particular respect, this method was impossible. However, some evidence may be found in them, which, when combined with the few statements worked out by directors, may serve to give some slight measure of trends. The statements made here apply, of course, to station programs, since the majority of those institutions using commercial outlets use their time for information most of which, as would be expected of land grant colleges and state universities, is agricultural; however, as will be shown later, there are exceptions to this rule.

Of ten station schedules analyzed, it was found that entertainment ranged from 10 to 45 per cent with from 30 to 35 per cent the most common practice, and with sports and drama taking very minor positions; that is, by far the majority of entertainment is music. Standard commercial practice, according to Cantril and Allport, is 60 per cent music (10). As stated before, any tabulation of informational features is virtually impossible. Nearly every station has certain distinctive features that will not fit into anything but the most comprehensive table. However, a close examination of a number of program schedules reveals a prevalence of book and travel programs and popular scientific features among general education programs; and history and languages among formal education. The frequency of news in the program schedule particularly impressed the writer. Apparently every institution which can conveniently do so is using news to broaden its service and add timeliness and interest to its programs, a development foretold by Tyson (98).

Abbot, in his chapter on "Building the Radio Program" (1), stresses, as do others (39, 98), the need for program balance. The writer found that the majority of station schedules carried a good interspersing of information and music. Only a small minority of the schedules examined revealed long stretches of talk without musical breaks, classroom broadcasts and farm hours excepted, and the music periods were usually a full 15 minutes, not just a record or two.

Farm and School

Since this survey deals with land grant colleges and state universities, this question was included: Do you present a special farm and home period? Twenty-six directors reported that they do; ten, that they do not. Of this ten, four are institutions having an agricultural sister institution that is also broadcasting. One has a commercial outlet for a special series of garden programs only. The remaining five, it appears, have agricultural facilities but do not serve the farmers of the state. Two of the five are designated as agricultural colleges and both state that they broadcast regularly over commercial stations. (This same group of ten stations, incidentally, are in the group which stated that they did not attempt to present emergency information for rural listeners.) These figures show that 75 per cent of the land grant colleges and state universities have programs for farmers. Tyler reported 65 per cent in 1932. (Four institutions have begun using commercial outlets since his report.)

Of institutions having their own stations, the time devoted to farm and home programs varies from three quarter hour periods to 14 hours a week. One hour a day is the general practice. Over commercial stations, the practice is, with one exception of a half hour daily, a quarter hour daily. From this it appears that the farmers of the country are getting fairly adequate service from their state institutions.

Two other questions in the field of special programs were asked. One inquired if programs for high school students were broadcast. To this 15 replied "yes" and 20, "no." Nine of those doing so have their own stations and six use commercial outlets. Six of those who do not broadcast for high school students have stations. These figures show 55 per cent broadcasting for schools. Tyler reported only a slightly higher percentage in 1932. No other significance is attached to these figures, for this question was asked mainly in relation to a second question, prompted by the writer's observations, which asked: If so, do you have the cooperation of the state department of education in arranging listening classes? To this only two answered "yes," nine answered "no," two said such cooperation had not been sought, and four stated that they had cooperation from high schools. (Two of these latter were referring to programs for Future Farmers; the two were not counted in the 15 answering "yes" to the first question.)

The author is of the opinion that to broadcast programs especially designed for high school students without more cooperation from public school authorities is a waste of effort. Further comment on this point seems unnecessary.

Summary

In summarizing the discussion under "Program Materials," it should first be noted that the author has not intended to present an exhaustive treatment of the problems but has touched only on certain aspects which he has considered timely and important.

It was found that availability of material suitable for radio presentation is limited largely by lack of time or ability, or both, of the radio personnel to prepare and present it, a reiteration of former conclusions. Though there seems to be sufficient variety of material and a desirable balance between information and entertainment, in most of the programs examined, there appears to be a decided lack of coordination of viewpoints and activities between listeners and broadcasters, and between the radio work and the resident activities of the institutions. Here again we have a reflection of time limitations.

As far as trends in program makeup are concerned, the only tangible evidence uncovered pointed to some increase in the number of institutions presenting farm and home programs, though a few institutions which could serve their constituents in this respect, and in giving valuable emergency information, are not doing so. It was also concluded that entertainment features and school programs have declined somewhat; and that book programs, popular science features, and news have increased, indicating a trend toward more information of wider appeal.

PROGRAM PREPARATION AND PRESENTATION

Much has already been said about the preparation of programs, especially as to the time and talent required. Now, having presented some preliminary problems of program material, we turn, as all educational radio discussions must, to the heart of things and take up in some detail the main aspects of program preparation and presentation. We shall not, however, discuss at great length the several elements of style, for example, or the component parts of good radio speech. Rather, we shall treat more general points of controversy and consider these minor, but important, details only as they may be found in the broader activities that affect the quality of adult educational programs.

It is seldom that comments or opinions are directed at any one of the several components as the author has outlined them; and this fact presents some difficulty in quoting authorities and directing discussion in a clear-cut fashion. The factors themselves are closely interwoven; and frequently statements will have application to more than one point. Perhaps it would simplify matters to leave out the views of all but those who replied to the questionnaire; but for the sake of completeness in viewpoint, some analysis of the many and varied opinions will be attempted.

Showmanship

Before taking up matters like editing, style, age level, etc.,

perhaps we should consider the long and ardent controversy over showmanship. On this point, as on some others to be treated later, there is much divergence of opinion. The commercial broadcasters, almost to a man, have insisted upon showmanship in educational broadcasting. Without it, they maintain, there will be only the most meager of audiences and the effort that is made will be highly ineffective. Another group, educators for the most part, is diametrically opposed to this view. And still others, many educators among them, take a middle course. Running the risk of criticism, the author will venture to classify many of those who have spoken in this controversy.

The anti-showmanship group base their arguments on the view that educational programs should be directed at a minority that wants education for its own sake, not to the masses that must be "tricked" into being educated. Orton (65), Sproul (88), Payne (68), and Hettinger (37) may be placed in this group. So could many others. Orton would appeal "to the latent initiative and idealism of America." Sproul feels that commercial ideals and educational ones cannot be mixed. Payne deplors the low level of programs that may "in time make us a nation of grown up children." Hettinger says, "The cultural level of this group (the middle class) is by no means as low as loose thinking or intellectual snobbery would place it."

Then there is the showmanship group, in which we may place Aylesworth (6), Elwood (25), Paley (66), and Sarnoff (84), all executives of

commercial broadcasting; and Frank (29), and the 150 of the country's leading radio editors and critics for newspapers, who recently replied to a questionnaire by saying, among other things, that more showmanship and attractiveness in presentation of educational and cultural programs, of which they feel there is a sufficiency, is needed (b).

Aylesworth has stressed "essential humanity" and vividness in a message for mass consumption. Elwood has stated, "If the educator is going to educate by radio, he must use showmanship to do the job effectively." Payley wants the educational program to be "so vitally alive and important that it borders on entertainment." He bases his statement on exhaustive surveys of the audience. Sarnoff reiterates the views of the three preceding executives. Miss Waller qualifies her view: "There is a decided place for showmanship in educational programs, but the hour and the audience must be right or the effect is lost." (104).

To this group we may add Dunlap (19) and Dixon (17), writers of books on speaking and writing for radio. The former remarks, "Success in . . . broadcasting is no haphazard trick. . . . Broadcasting is an art. . . . The speaker must be a showman as well as an orator; and actor as well as spellbinder." On the writing side, Dixon goes into the standard aids to effective journalism, and apologetically concludes: "These are journalistic methods and naturally will be frowned upon by some serious-minded educators. However," he adds, "if education of the

(b) As reported in the Roanoke (Va.) Times, Feb. 27, 1938, p. 32.

masses is a national obligation, then the likes and dislikes of the masses must be considered. . . . The average citizen knows that education is good for him, but he isn't going to accept hours of boredom along with a smattering of instruction."

Perhaps the viewpoint of the showmanship group may well be summed up in the words of one of America's leading journalists, since we are in that vein, the words of E. W. Scripps, written for news but applicable to radio: "Our one business is to get an audience. Whatever else it is, our newspaper must be excessively interesting, not to the good, wise men and the pure in spirit, but to the great mass of sordid, squalid humanity. Humanity is vulgar; so we must be vulgar. It is coarse; so we must not be refined. It is passionate; therefore the blood that runs in our veins and in our newspapers must be warm."

Little wonder that some decry such an attitude. Yet the better elements of journalism do have a place in radio writing. But Dixon's apology is not out of place, for as we come to the mid-way group, we find one of them making this statement: "Information must be popularized in order to be universalized. While this involves more showmanship than is characteristic of educators, it would be a mistake to turn the job over to the feature writers." (83). (Miss Samuelson's statement might be modified by changing the phrase to "sensational feature writers.")

Others who may be added to this group that feels that some measure of showmanship in education is desirable are Erskine (26), Moyer (59), Hutchins (42), Loucks (50), Perry (69), Prall (73), Tyson (99), and Willis (108).

By far the majority of educators and many of the more conservative group of commercial broadcasters belong in this group. Since the writer also favors some degree of showmanship, he here presents his own views along with those of some of the commenters cited above. He may agree with Hutchins's statement that the sole test of a program should not be the number of people gathered around a receiving set. To do that education would have to stoop too low and in all probability rule out educational material altogether. But the writer does believe that for radio education to give the most returns for the time, effort and money expended, it should stoop a little, retaining the materials of education and sloughing off its dignity and complexities, its formalities and needless intricacies. Radio should not be formal but it should supplement the formal; as Erskine states it, "the moment the scholar talks on the radio, he must surrender his ancient and jealously guarded privilege of being dull." And he adds, "I never could see why truth should be authentic only when it is superficial."

The whole question boils down to this: Which will have the greater total benefit -- formal education formally presented or interesting educational material entertainingly presented? Or stated another way: Is this great invention, which by its very nature is adapted to mass education, to be used to stimulate and guide those who have not had the advantages of higher education or only to satisfy a minority which in all probability has ready access to other sources of intellectual satisfactions? Clinging to the latter view makes it easier for the educa-

tor, perhaps, for with such a minority in mind, he feels free to transplant classroom lectures to the radio. But the writer believes that education for a majority is the greater social ideal and the rightful purpose of radio (cf. 108).

It is not meant by this that fairy tales and Mother Goose rhymes must characterize educational programs; but that sound educational material should be presented -- in fairy tale settings, if you will. Obviously that is exaggeration; but the point is that weighty material need not be made weightier by the way it is presented -- in dexterous hands it can be made light, entertaining, but still highly informative.

Perhaps more attention has been given to this controversy over showmanship than it may seem to deserve, but it has ever been a live question, along with the definition of educational radio programs, at every conference, with the exception of the last National one, held in Chicago in December, 1937, according to accounts (24). If the reader wishes to read further on this topic, he will find a discussion with an educational slant in Frost (31), and popular summaries in Hill (40). Factors closely related to this controversy will now be the subject of this thesis.

Editing

It has been fairly well established that radio personnel of educational programs is none too able to prepare talks acceptable to the average listener; and it would appear that editing, with radio as with

the printed word, would be helpful. How much of it is done? Here is a reply that is typical of the college situation, I believe:

While a few of the extension and college folks that appear on our programs do make a special effort to provide the kind and type of material best suited for radio use, the majority of them are apt to spend very little time in preparing their radio talks, and to merely "get some material together" that they can give over the radio. While we attempt to edit all radio talks we do not have sufficient time to re-write and revise many of the talks that are only average. If more time were available for radio, additional assistance could be given in the preparation of all radio material.

Again the question of time, with its further implication of finances! And in view of previous statements on these two factors, may it not be assumed that the situation pictured above is duplicated at most institutions? It is not surprising, therefore, to find that to the question, Are radio talks edited for grammar and radio technique? 18 said "yes," 14 said "no," one said "partly," one said "supposedly," one said "yes" for agricultural and "no" for general talks, and one said "yes" for outsiders and "no" for faculty. There were slight suggestions here and there of offense, or at least surprise, that the question should have included grammar; and the attitude bears out the prevalent assumption that professors are infallible in any undertaking -- "the divine right of education," as one critic has stated it. However, it is gratifying to note that half the institutions replying provide editing, though it represents no increase since Tyler's report of 55 per cent in 1932.

Table VI. Institutional Practice in Editing Radio Talks

Full Editing	Partial Editing	No Editing	Outsiders Only
18	3	14	1

Style

Talks edited for grammar and technique would, of course, be edited for suitable radio style, which involves choice of words, sentence length, clarity of ideas, simplification, etc. Much has been written about style, but this study is not meant to explain the details of it; it will, however, touch upon certain related aspects.

Dixon makes interest the chief element in the successful talk, and adds that the teachers in the school of the air will be writers rather than lecturers (17). Dunlap has somewhat the same thought when he reports that freshness of material is the key to talks success (19). Miss Waller echoes the same feeling when she speaks for stimulation (106). Archer (3) and Miller (56) plead for more illustration and less instruction and technical items. Dale, reporting on experimental research (14), notes that "radio instruction, like all class room instruction, suffers from a tendency on the part of the teacher . . . to make simple things unnecessarily difficult." This condition is often the result of too many different ideas and difficult sentence structures. Douglas McGregor, whose research has dealt with psychological aspects of radio (43), has found that the simpler expressions are an aid to the reception and retention of ideas given over the radio. Cantril and Allport came to the same conclusion (10). Dunham stresses the need for a natural, spoken English, and an economy of words and ideas, along with other factors that make for interesting speech (18).

Miss Philput (70) and Salisbury (82) put much emphasis on clarity. To these are added admonitions for concrete picture words, narrative style and other factors common to effective writing for either listening or reading. Still others carry the warnings over to the presentation of the talk (4, 29, 48, 49, 99). All warn against a classroom or academic atmosphere, and stress the need for attracting and holding an audience that is not imprisoned in a classroom, and urge abandoning pedagogy and its smell of midnight oil. Studebaker adds, "We have come to the conclusion that the talk is one of the most difficult of all radio techniques." (91). (This portends the adoption of other forms, to be treated later.) And Erskine touches the whole matter with a stroke of humor: "If a man has enough love for a subject to spend his nights and days studying it, I do not see why some of the enthusiasms should not leak out when he talks." (26).

All this leads up to what may be termed an academic versus informal manner in presenting radio programs. Which of the two is the practice at land grant colleges and state universities? A question to this effect was asked. Twenty-one reported that effort was made to avoid the academic manner in radio presentations, four said no effort was made, six reported "some but not enough," and two "try for the middle way." From this it appears that the trend is definitely away from "classroom" techniques which have been so consistently opposed. However, the question unfortunately does not give an objective measure of actual practices, which could be obtained only by a group of competent judges

reading or listening to talks, and even this could be only partial in scope and would still be largely subjective. The fact that educational speakers are conscious of this pitfall is, nevertheless, encouraging. But when we come to the "introduction of speakers," an important factor in setting the atmosphere for the listener, we find some discrepancy in the situation, and a tendency to stick to the academic.

"The technique of speaking into a microphone is different from that of any other means of communication. It is essentially the art of being personal." (10, 12, 13, 98). With this advice in mind, plus the personal feeling, out of experience, that it is superlatively dignified and inappropriate to introduce one professionally for what should be an informal, family sort of discussion; and with a view to a check on the academic versus informal atmosphere, the question was asked: Do you use a professional or personal introduction for speakers? Nine stated "professional," eight "personal," and nine "both," and three missed the intent of the question.

Table VII. Practices in Relation to the "Academic Manner."

	Attempt to Avoid	Partial Avoidance*	No Avoid- ance
In speech presentations	21	6	4
In introducing speakers	8	9	9

*For purposes of comparison "middle way" reports on speech presentation are combined with partial efforts to avoid the "academic manner."

Some may hold the view that this matter of introductions is not important, but the writer feels that it is. And there is some evidence as well as opinion to support this view. Cantril and Allport (10)

found that listeners are inclined to stereotype speakers, as to appearances and certain of the abstract personality traits, incorrectly. The professorial type is very likely a stereotyped one in the average mind; but an informal introduction could do much to overcome this tendency in listeners. These two experiments also point out that a dull beginning is fatal, as do Salisbury (82), Ewbank (28), the CBS (12), and others. An introduction of the strictly professorial type handicaps the speaker. The study reported by Ewbank presented an analysis of six talks, three selected as good and three as poor by a committee of lay listeners. The analysis was made by a graduate student in speech who attributed to the good speeches an informal, friendly beginning, and to the poor ones a cold, formal introduction. The good speeches also employed direct address, active and concrete expressions, and emotional appeals, which latter we find so greatly stressed by Overstreet in his "Influencing Human Behavior." Reith (77), speaking for the BBC, which is generally regarded as having mastered the techniques of radio talking, states that the attachment of the adjective "educational" (is not "professor" synonymous?) to any matter is apt to weigh heavily against its acceptance. "People object to an open proposal to educate them," he continues. "A pontifical attitude -- or, still more, the suspicion in ordinary people's minds that it exists -- is perhaps the greatest danger that radio education has to face." Dunlap (20) makes an identical point, adding that the Englishman chooses to call his informative broadcasts "popular talks," and "does his best to live up to that standard without being too sensational lest the

normal functioning of the mental faculties be disturbed by over-excitement." It appears, then, that public apathy to "education" must be overcome; and certainly, this writer believes, an informal introduction can do no harm.

Length of Talks

Another detail that has not received much emphasis or study until recent years is that of the length of talks. Even today there is little to guide the speaker except judgments; however, Cantril and Allport found through experiment that 15 minute talks were most suitable for educational purposes (10). This is longer than has been commonly regarded as desirable and may be the result of the conditioning of the American audience to 15 minute periods on the radio. The CBS (12) recognizes that few persons can hold a radio audience more than 15 minutes. A Kansas survey of listeners shows a preference for five minute talks.

The questionnaire asked radio directors what they considered the optimum time limit of radio talks. Answers varied from two minutes to 50 minutes, with the latter carrying the interesting comment that this length brought the best response; but these are classroom broadcasts on historical subjects, and, doubtless, by an able and interesting teacher. Hill tells us that some hour-long radio lectures from Harvard have gained good audiences (40).

The average of replies gave a length slightly over 12 minutes. Without the two extremes of two and 50 minutes, respectively, plus one

response giving 30 minutes, the average was 11 minutes. Since this treatment concerned only opinions, it was further inquired if the limits stated were adhered to. Seventeen replied "yes," of which replies by far the majority applied to time limits between 10 and 15 minutes, and did not include the extremes. Four replied "in general." Four said "no," and this group included one five minute, one 15 minute, one 13 minute, and one six-to-eight minute limit. Four more said "it depends" on the subject and speaker, and this group included the two minute, the 30 minute and two 15 minute limits. The one mentioning the 50 minute periods did not answer this question, but an examination of his broadcast schedule reveals a practice, except for these daily classroom lectures, of 15 minutes or less.

Table VIII. Optimum Time Limit for Educational Talks

		Minutes												
		1-2	5	6	6-8	7-8	8	5-10	10	13	13½	15	30	50
Directors														
favoring . .		1	4	2	1	1	1	1	5	1	2	11	1	1 ^a
Adhered to in progs.	Yes		3	2			b	1	4		2	6	c	b
	No	1				1				1		1		
	Gen.		1		1				1			4		
a. "Gets most replies." b. No statement. c. "Depends on speaker."														

From this evidence and from readings and observations, it appears that, with few exceptions, 15 minutes is a maximum for talks programs. No evidence that shorter periods than this are detrimental has been found; in fact, it seems that public apathy to long talks might justify

two short talks in a 15 minute period, provided they are logically related and a chopped effect can be avoided. But this problem of relationship, together with our general acceptance of 15 minute divisions in radio time, has, no doubt, precluded this practice.

Rehearsals

Under "Problems of Personnel" some attention was given to the amount of time needed for the preparation of radio talks, and several authorities were quoted whose estimates ranged from four hours upward. In every estimate of time needed for preparation should be included time for rehearsals. Every high standard for effective radio speaking includes rehearsal. "No matter how experienced or practiced a speaker or an artist may be, broadcasting companies always plan for a microphone rehearsal before he goes on the air." (12). Out of its successful experience in radio, the Office of Education (63) recommends a rehearsal of 2½ hours, with technician and production manager present, for a script of not more than a half-hour of broadcast time. This, of course, does not refer to the talks program, but the advice may well be carried over to it. Archer (3) advocates rehearsing a talk from three to six times. Hill and Salisbury note a lack of editing and rehearsing (39, 40), and it has been the writer's experience that educators, through indifference or lack of time, consider an eye reading or two as rehearsal. No instructor in public speaking would tolerate that. What anyone who has spoken on the radio must know (but few seem to profit by the knowledge) is that reading to oneself, even aloud, is

not the same as talking on the radio. The practice of reading a talk both to oneself and also over a public address system with a critic listening in, whenever possible, is the accepted rule.

How widely is this factor in the improvement of educational talks practiced by those who give them? To an inquiry of this kind, 11 directors replied that programs are rehearsed before presentation; 11 reported that they are not; 11 said "some"; and one confined an affirmative to music only, and another to group programs only. A similar question for talks especially drew similar response: 11 reported that talks were rehearsed; 15, that they were not; and four said "some." It is hardly necessary to mention the great improvement that rehearsal can give. Miss Spratt estimates that rehearsing improves presentation 50 per cent (86). Neither is it necessary to call attention to the need for it in educational talks, especially in view of the report on quality of talent. However, encouragement is found in a comparison of this approximately 83 per cent with the 11 per cent reported in Tyler's Appraisal; but there is still, of course, room for improvement. Though this condition is likely traceable to financial deficiencies, and the related limitations of inadequate personnel and insufficient time, it appears as one condition that might be improved at little additional cost.

Program Series

From his own experience, the writer has long been concerned with the difficulties of presenting educational material in a form that

will in some measure sustain the interest of listeners and attract them to successive presentations. The chief difficulty seems to lie in the "catch as catch can" necessity of educational radio activity. To this may be added the mistaken belief that all faculty members can broadcast successfully and should share the load. This condition might be corrected to a large extent if a qualified minority were relieved of some of their other duties and given the time necessary to prepare and present groups of related and interconnected ideas rather than occasional talks.

But the writer runs the risk of criticism for preconceived ideas. Let us look for sustaining opinion and fact. Charters (11) has long since noted the need for comparative studies of the relative effectiveness of single talks and series presentation, through objective, laboratory research. There is still such a need; but since this writer has not had opportunity for objective tests, he has turned instead to general practices and views of leaders.

The outstanding successes in educational presentations point to series presentations: the programs sponsored by the National Advisory Council on Radio in Education (40, 100), the presentations of the Office of Education (9, 62), the work of the University Broadcasting Council of Chicago (40), some programs from college stations (39), and any number of presentations by the networks. Archer (5), Barrow (15), Ewbank (27), Moyer (59), and Sproul (86) have all stressed the values of series presentations. Kirby in relating the success of educational

features over his station tells how the programs are planned in series (47). Green states that the BBC usually plans talks in a series, and adds, "The success or failure of any of these series of service talks depends upon the speaker and his ability to sustain and stimulate an interest week by week." (53). The "radio script exchange" of the Office of Education lists 100 available manuscripts, all popularized and presented in groups of six or more in a series (62). Any indication that presentation of material in singles rather than in a series is more effective is exceedingly hard to find.

Results of the questionnaire should be prefaced with the explanation that by a series presentation the author does not mean a narrative that strings along from thrill to thrill; but he does mean that one talk in a series should stimulate interest in some general theme, an interest sufficient to bring many listeners back to the next, and the next program in the series. Program directors were asked if they thought such a carry-over of interest were desirable. Of the 24 who answered this question, 19 said "yes," four "no," and one wrote the startling comment, "not worried over this -- most of our listeners are occasional." The natural interrogatory reply to this last remark is, "Why not strive for more than occasional listening?"

How to determine if educational programs on the whole succeed in sustaining interest. The question was asked, Are you able to do this successfully? Only two said "yes," one said "usually," six said "partially," and 12 said "no."

Table IX. Carry-Over of Interest by Series Presentations

Replies by directors:	Yes	No	Partially
Is such carry-over desirable? . .	19	4	
Able to do so successfully? . . .	5	12	6

Going a step further, an inquiry was made as to how this sustaining is accomplished. Two stated that the usual methods were relied upon, meaning, no doubt, that some theme was established for a series. Five of the "partially successful" group said it depended on the nature of the series. One attempted to build up the interest of a select group. One or two gave more specific suggestions: by dialogues to suit farm wives, etc; by references, suggestions, clues, dramatic baits, announcements; by story book and health periods directed at select listener groups.

It has been fairly well established, the author believes, that the series nature of presentation would be very helpful to sustained interest in educational features. It has been equally well established that this form of presentation is favored by program directors but is none too widely practiced at land grant colleges and state universities. Why? The answer, it appears, is directly related to problems already discussed: the failure of administrations to provide funds, personnel and time; the apathy toward paying or compensating those best qualified to broadcast; and the lack of coordinated efforts in planning as well as in production. (See "Program Materials," page 21.) Solutions, it is granted, are not readily forthcoming, especially with regard to finances; but the writer holds the view that time-compensation

of the best talent and greater coordination in planning and production do not appear to be impossible undertakings.

Characterizations

The establishment of a personality for a given program is thought by some to be an effective means of attracting listener interest (22). It can be used most advantageously, of course, in a long series having either one or many sources of material. The United States Department of Agriculture maintained an extended series of "Housekeepers Chats" on this basis, in which "Aunt Sammy" was the friendly adviser of homemakers. Since this was a service series to extension divisions and commercial stations, the complete establishment of the character was not fully made. The University of California has used "The University Explorer" idea in some of its series. W. M. Landess, now of the TVA, became famous for his two-person sketches in which some problem was developed before an authority was called in for advice (75). The Office of Education features of the dialogue and interview type employ similar devices (9). Even advertisers have adopted the method by having a voice that sounds distinctly professional present recommendations on health, finances, etc. (10).

"A successful program has — as the phrase goes — a 'personality'," Centril and Allport conclude. "It is something that can be talked about and thought about. Sometimes it develops on its own merits, but more often it is 'built up', through newspaper publicity, through catch phrases and theme songs, through a relationship with well-identified

characters . . . or with some well-known institutions." Atkinson (4) states that "the surest method of interesting a living individual is to introduce him to other living individuals."

It was pointed out earlier that the non-personal introduction might handicap a speaker who hoped to establish a common ground for friendly discussion on the radio. Atkinson implies much the same thought with his "living individuals." But the question may well be raised, is it possible to carry such an idea to its most effective ends with programs in which no one person appears twice, let us say, in the same month? It is true, of course, that the announcer can establish some sustained personality for a program and for the institution represented, perhaps, but this to the writer's mind is not the same as living individuals and characterizations within the programs themselves.

These are the author's views on the subject, admittedly none too well established by opinion or definite proof, but worthy, he believes, of consideration. What do the radio directors queried think on this subject? They were asked if they thought there was anything to be gained by building up a fictitious character such as "Aunt Sammy," in presenting regular features. (This character was used because it was thought to be a familiar one with most directors.) To the question a variety of answers was given. Ten said "yes," 13 said "no" and some quite emphatically, eight said "sometimes," one said "yes" for agriculture but "no" for general information, two didn't know, and one was doubtful. An examination of some of the comments will throw more

light on the question, perhaps. Another noted, "Not for university programs." Another, "Not found it successful nor practical." Another, "Not for us."

On the basis of these answers, the author is mistaken in arguing for the establishment of personality in programs through the use of some character who presents a sustained series of informational features. Certain it is that the majority of program directors at educational institutions are none too favorable to such an idea. But perhaps a little further consideration will reveal underlying views. One may be the accepted practice that the authority should present his own information, since he is assumed to be the only one qualified to speak on his subject. His qualifications as a radio speaker do not enter in. Another seems to be that the practice would not be dignified enough for university programs. Perhaps it smacks too much of showmanship. One respondent probably expressed the fundamental problem when he stated, "It all depends on the group you are trying to reach." If this is the real issue, which no doubt it is, and in view of the writer's previous remarks on showmanship, he still clings to the belief that many educational features could be made more acceptable to a larger group of listeners by establishing some friendly and sincere character to present a series, and that this could be done without harming the quality of the educational material or the reputation of the institution. As long as characterizations of this kind prove successful, it would appear that more definite proof of harmful effects is needed to offset the favorable points.

Dramatizations

Closely related to the idea of characterization is that of dramatization of educational features. The writer has sought the opinions of authorities and directors on this point likewise. The wide use of dramatizations in commercial features may be dismissed at once as evidence that the dramatic form is a successful one in gaining listener attention; but what of its application to educational programs? It must be admitted, of course, that not all educational material can be, or should be, presented in dramatized form. In fact, a question asking directors to list educational fields they thought most suitable to this technique met with unsatisfactory response, indicating the uncertainty of educators as to how far they should go in this direction. Charters (11) has suggested that investigations be made of the effectiveness of dramatization, along with dialogues, interviews, informal addresses and informal talks. Since the simplest drama and an intriguing dialogue or interview are not so widely separated, we may safely include some views on the latter under this heading.

Centril and Allport (10) state that listener tastes place music first, comedy second, dramatic programs third, general talks fifth, and educational programs eighth. "Among young people," they add, "of educational programs, dramatized stories and dramalogues on lives of great persons rank first and second." From this, and similar reports on listener surveys give like evidence (38), it would appear that educational material can be raised from eighth to third, or nearer to

third, position through dramatization.

Among authorities whom the writer has found favoring dramatization are Pollard (72), Denison (16), Dunlap (19), Miller, Ewbank, and others. Hard (36) speaks of the dialogue and interview as useful but needing careful preparation. Dixon is of a similar mind (17). McCarty (52) tells of a successful educational campaign of related episodes. And the success of the Office of Education programs has already been noted. Boutwell tells of the response of 300,000 listeners in nine months (9). In listing guideposts for producing educational programs, he gives five rules for selecting material and 16 on its incorporation into scripts.

Murrow is of the opinion that dramatic shows of average merit are not difficult to write (60). But he maintains that we have entirely too much dramatization in an effort to sugar-coat with interest a few bald facts. He feels that the content of many dramatic programs could be better presented in a straight talk, "providing the speaker really knew his business." (We have already pointed out that Murrow considers the talk the most difficult of program methods.) He further states that the dramatic form cannot accomplish persuasive teaching. His model for this accomplishment is the narrative form which has characterized the great teachers.

Miller (57) gives views similar to Murrow's in stating that the lecture form is most satisfactory to gain maximum content in minimum

time. In this respect he places conversation second and dramatization a weak third. But for interest-holding qualities, he adds, the order is reversed. A report of an experiment by Bwbank (27) takes us a step further and concludes that the listener's recall of facts is not affected by the method of presentation. His experiment covered formal, informal and dialogue forms, but the listeners were in the unnatural setting of a classroom group, not as individual listeners. Reporting on further studies (28), he concludes that dialogue and dramatizations are about equally effective in conveying information.

Hill in one place states that education must look mostly to writers, dramatists and actors for much of its talent (40). Later he states that radio has rather overdone dramatization, but notes the value to education of drama, panel and forum discussions, and other non-lecture methods.

Inquiry was made of radio directors as to their activities and views regarding dramatization. To the question, Have you attempted to dramatize educational material? 15 replied "yes," 13 "some," eight "no," one reported dialogues or interviews, and one said "by students only." To those who said "no," this question was directed: Do you feel it would be ineffective? Only one said "yes," and eight said "no" (including one who had indicated "some" use of dramatization). The rest, of course, were noncommittal.

The respondents were asked to indicate whether they regarded their dramatizations successful or not. Seventeen considered them

successful, one exceptionally so. Five considered them fairly so. One said "not successful." To the question, Why not successful? three answered with "lack of time for training talent." To the question, "Does dramatization require more time and talent than is available? the answers were unanimously affirmative, with one adding, "more than results would justify."

It was stated earlier that only a few of the program directors attempted to list educational fields suitable for dramatization; however, from the replies that were offered, an interesting list can be made, indicating that the field for dramatization of educational material may be larger than one may at first realize: history, literature, science (the three most frequently mentioned); science listed more specifically as physical, social, and scientific discovery; geography, sociology, biography, psychology; dramatic arts, current events, health, safety; demonstrations, homemaking, agriculture; and college life problems. If others had contributed their ideas, the list could easily be extended. As one respondent expressed it, the method of presentation is not as much a limiting factor as the effect desired. It should also be noted that nearly any subject can be treated in the dialogue or interview form; and that all subjects can be treated in talks, if speakers are willing to run the risk.

The mention of agriculture in dramatization may be of interest to many of those who answered this questionnaire. The writer has speculated on this possibility for some years. It has remained for

the West Virginia Extension Division to establish the idea, using a cross-roads country store setting where one of the extension staff regularly takes the role of the storekeeper and farmers and friends meet to discuss common problems. Listener response, it is reported, has been most gratifying. The program began last November 1 over a 5,000 watt commercial station.

From this discussion we may conclude that dramatization has become well established as a tool of radio education. Its use, development and perfection will depend upon the time and talent that is made available for it. There is, of course, the possibility that it may be overworked, but this seems remote, especially at institutions where there seems to be a constant struggle for the materials from which good educational features may be built.

Age Level of Programs

To raise the question of presenting programs for a definite age level of audience intelligence is, admittedly, reverting in a large measure to the already discussed controversy over showmanship. However, the two problems are not so much alike that they should not be treated separately. Many of the factors that logically come under this heading are closely associated with others already treated under "Program Preparation and Presentation." Of necessity we must think of them once more, and yet again when we come later to listener surveys.

The division of opinion over what should be the proper age level of educational broadcasts is as marked as it was over showmanship. Some insist on a 12 or 14 year level. Others maintain that educators should broadcast only for the mature listener. A delineation of the groups may be useful.

In general it may be said that commercial broadcasters are convinced that the average listener intelligence is 14 years. Abbot (1) and Exbank (28) advocate simplicity in words, based on Thorndike's list of words familiar to the 14 year age level. Centril and Allport (10) say that the conventions of spoken rather than the written language must prevail, and point out that effectiveness is in inverse ratio to the number of difficult words used.

We might here digress a moment to note that the same advocates likewise stress clarity in expression, sentences of average length or less, and a reading rate that is not over 160 words a minute. In addition, we may note that Miss Sprott reports (86) the use by the BBC of a well-calculated speed and a slower rate for talks directed at rural listeners.

One of the foremost opposers of the sining of programs at the 12 year old level is Commissioner Payne (68). "Radio," he says, "must be prevented from stopping the growth of the American mind." Hettlinger is on record as saying, "There have been few half-truths more pernicious than that of the average fourteen-year-old intellectual level

of the American Public." (37). Smith implies that pleasing the greatest number is a concession to the fact that we can never expect to attain an elevating accomplishment. Yet he says the idea must "click" and the speaker must galvanize his audience with drama (85). This suggests a middle course.

Others seem to seek a middle way, among them Miss Pollard (71), who would check the vocabulary carefully and increase the informality of talks. Miller has described a test which showed that several Chicago professors used in speaking a great deal more simplicity of language than they used in writing, and in writing read over the radio (58). He urges college men to use their speaking vocabulary over the radio. Bingham (8) makes the pointed statement, "It is preposterous to talk down to . . . an audience in the professional tone of the lecture room, or to assume that the intellectual level content of the address must be adapted to a twelve-year-old intelligence." Lewis voices a similar opinion (48). Elsewhere we find that, according to Dr. Segel, Office of Education specialist, 97 per cent of the adult population (18-50 years of age) have an intelligence above the 12 year old level, and that approximately 50 per cent of these have a learning ability above 18 years of age (41). How far above the 12 year old level this report does not state; and it should be noted that learning ability and not learning is stressed in the latter part of the statement.

As with showmanship, so with age level, the writer would speak for education of the masses, agreeing with Miss Webb (107) who, while

recognizing that broadcasting can be directed at select groups, adds, "It seems reasonable to believe that the social significance of the radio . . . lies in its potentialities as an instrument of mass enlightenment." Recalling Dr. Segel's statement, may we not ask, is it impossible to couch radio talks in simple but pleasing language and still give the masses better than they want without losing the respect of mature listeners? Much of our most highly prized literature is very easy to read. Why not apply similar tactics to radio?

But perhaps radio education is already doing this. Hill states that most radio education is aimed at an audience with about nine years of schooling but with adult experience (40). What contribution experience may make toward an adult's ability to understand unfamiliar words and the more complicated sentence structures he does not point out. It is to be inferred that the attainment of such understanding requires as much practice as do other forms of education. But a report from radio directors is in order, as a final concrete contribution to this controversy. Asked at what age level they thought educational programs should be directed, 15 reported high school ages, from 12 to 16 years; five said "average adult"; three said "general intelligent public"; four said "various" and two said "all ages." These are opinions which, if we accept "average adult" as equal to "high school ages," may be lumped together as 20 in favor of not too high a standard; three for an "intelligent" program; and six various or intermediate.

What of actual broadcasts? Having established these opinions, an additional question asked if the programs matched this standard. Fourteen said "yes." For this group, the replies meant that five were directing programs at high school levels (13 to 17 years), four to average adults (including 18 years), two to an "intelligent audience," and three to all levels. Six stated that their programs were not meeting their standards, which were given as 12 to 16 years or various. Six reported partial matching of the standards, and all of this group have confined their age limits within the range of 14 to 16 years.

Table X. Age Level of Institutional Radio Programs

	Age Level												Tot
	12	14	15	14-16	16	HS	16-17	18	AA	GIP	Col	Var	
Directors favoring programs for . . .	2	5	2	2	1	4	1	2	3	2	1	6	29
Match standard	Yes		1		1	2	1	2	2	1	1	3	14
	No	1		1		2						2	6
	Some	1	2	2	1								6

HS-high school. AA-average adult. GIP-general intelligent public.
Col-college education. Var-various. Tot-totals.

Three did not answer the question on matching standards, accounting for the differences under AA, GIP, Var, and Tot.

From these results it appears that in general there is effort toward making the educational programs from land grant colleges and state universities understandable to the average adult, and that 14 out of

the 29 reporting consider they are successfully doing so. Two are definitely aiming higher. Six are not able to meet the requirements, and six are able to do so only partially.

PROGRAM PROMOTION

One of the earliest of reports on educational radio program activities noted the importance of program promotion through advance notices and follow up material (2). Charters has called special attention to "making easily available for adults everywhere in the United States a daily list of educational programs." (11). Tyler found in 1932 that the majority of institutions he surveyed were giving some publicity and promotion to the programs, publicity of radio at 26 institutions devolving upon the publicity department, and at 17 institutions, upon a member of the radio staff.

Publicity

We have already mentioned that Cantril and Allport have called attention to newspaper publicity as an aid in developing a "personality" for programs (10). Dunlap (80), Higgy (39), Miss Rowden (80), and Willis (108), among others, have also stressed publicity. Miss Rowden has covered the field in detail, from program listings over the air to mailing lists. Tyson (100) says merchandizing is "an important factor to be considered under any system." Certainly, if the National Advisory Council on Radio in Education procedure (40) and commercial

practices are considered, little more need be said on the subject. It may be stressed further, however, as Dunn and Griffith do (21, 34), that audiences are built up, and that publicity seems to be about the only way to attract new listeners. Griffith advocates newspaper announcements ten days in advance, the organization of listening groups, and press releases on special features. The latter two suggestions will be given special attention in this study. Griffith's report was based, incidentally, on a survey of educational institutions, and from it he concluded that college editors were giving more publicity to programs.

Kesten (46) makes a remark that seems particularly applicable to educational radio. "Programs that do not have that typically popular appeal . . . need greater merchandizing No program more thoroughly justifies merchandizing effort than educational programs." That is all true; but perhaps a warning should be added that too blatant publicity of mediocre programs may lose rather than win listeners.

But the mere issuing of news stories on educational radio programs does not mean that the listener will see them or read them, a condition which presents a serious difficulty. Miss Webb (107) considers the newspapers as most valuable in reaching listeners, and this view is substantiated by the practices of commercial broadcasters, but she advises that their full cooperation be sought through personal visits. Though the personal contact is always helpful, it should be recognized, as Pollard does (72), that unless news has reader interest, even

friendly editors are unlikely to print it. Furthermore, for rural audiences, which make up a large percentage of listeners to land grant college and state university programs, the weeklies and small dailies are, perhaps, the surest and most direct approach; but here, in addition to the element of interest, is the limiting factor of space. On small newspapers, general news must be highly charged with interest in order to crowd out the local, personal news that gains readers for the paper.

We have, then, the suggestion of two logical steps: first, interesting programs with interesting titles; second, interesting news stories that editors will be glad to run. Lacking this essential combination, the only other alternative is to buy space in papers as commercial program promoters do (38). Education is not in the habit of paying for publicity, but if an educational radio station wants to insure regular appearances of its schedules in newspapers of its coverage, thought might be given to this method. A cheaper and more efficient way of reaching new listeners would be hard to find. It is quite possible that special educational rates could be obtained.

From speculation, let us turn to the practices of educational radio stations as reported in the questionnaire. Directors were asked, first, if they gave promotion to their programs. Twenty-five said "yes," six "no."

A reply to the question: How do you give promotion to your programs? brought, of course, various answers. The majority use more

than one method; therefore, a summation will give totals far above 31, but will reveal the most common practices and may supply suggestions for others to follow. Twenty-four use newspapers; nine, printed programs; eight, letters; six, county agents and vocational teachers; five, magazines, mostly farm; four, local news sheets, such as extension news or campus papers; four, contacts with groups; three, announcements over the air; one, "Radio Guide"; one, exhibits; one, special pamphlets in addition to regular printed schedules; and one, flyers in letters. Not more than four of these methods were listed by any one institution. What appears to be the most complete coverage listed newspapers, magazines, exhibits, and contact with clubs and study groups.

Table XI. Promotion of Programs

	Institutions Reporting	
	Yes	No
Promotion practiced	25	6
Considered helpful	30	1

	Types of Promotion								
	News- papers	Print. Progs.	Letters	Agents & Teachers	Maga- zines	Campus & Ext. News	Contact Groups	Ann. on Air	Other Means
(a)	24	9	8	6	5	4	4	3	3

(a) Numbers represent the number of institutions using each type of promotion and serve to show the most common practices. No institution reported using more than four different types.

As a check, this question was added: Do you consider promotion a valuable adjunct? Only one of those reporting some publicity practice

seemed doubtful. One other of this group did not fill in this answer. And one who had not replied to the first question checked this space. The others, as would be expected, said "yes." To the question, "If promotion is lacking, do you feel this limits the acceptance of your programs?" three of the six who reported no publicity answered "no"; the other three did not answer. In addition, two who had reported publicity activities put "yes" for this question. Under "comments" on this subject, directors gave views substantiating arguments already presented, such as:

- "Need more publicity" — four comments to this effect.
- "Might do more" — one.
- "An absolute necessity" — two.
- "Fine cooperation of press has built our audience" — two.
- "Publicity hard to get in newspapers" — four.

Supplements

Less has been written on the subject of printed information and other supplements for educational radio programs than one would expect, though it has been advocated and practiced since the early days of classroom and adult educational broadcasting, by both commercial and educational interests (40, 39, 105). Perhaps the dearth of discussion is due to the fact that everyone seems agreed that some form of guide or outline, a series of questions pertaining to the broadcasts, visits to libraries and museums, bulletins or instruction sheets, or listening groups to discuss the broadcast, are necessary to make edu-

ational efforts most effective, to spread the temporal span of education by radio (98). Tyler reported that the most extensive activities of this kind were supplying bulletins and answering letters from listeners, practiced by 28 institutions in connection with agricultural programs. Invitations to consult county agents were offered by 33. And the next highest listing showed 18 colleges answering questions concerning general information. Lesser activities were reported, but this should give us enough for comparison.

Table XII. Program Supplements Commonly Used

Bulletins	Copies of Talks	Letters	Field Workers	Listening Groups
2	2	2	2	
2	2	2		2
2	2	2		
7		7	7	
4	4			
3		3		
	3	3		
2	2			
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
22	15	20	9	5

This table is arranged to show how many institutions use all forms of supplements, or portions thereof. For example, two institutions use the first four methods, two use the first three and the last method, two other supplements were listed: the loaning of books reviewed on program over the air, and question lists -- see Michigan State account on next page.

The questionnaire carried check spaces for the most common methods of following up or supplementing radio programs -- bulletins, copies of talks, invitation to write, invitation to contact county agents or

other field men -- and space for "other." Twenty-eight answered this part of the questionnaire; results are given in Table XII.

The writer feels that three programs of listener organization which have come to his attention in this study are worthy of inclusion. Doubtless there are others which respondents failed to mention. One is the five year old "listening center system" organized for mountain groups by the University of Kentucky. Started in 1933, the system comprised in 1937 a total of 24 centers (located in stores, community centers, schools, private homes and post offices) for 16 of which NYA supervisors were provided. Receiving sets are provided through private donations. The groups "take the form of current events clubs, and children's groups, farmers' groups, music appreciation clubs, and nature study groups." (c) Interest of listeners has not waned, and its future as a vital service to remote sections seems assured.

Michigan State College sent copies of interesting program aids: a 30 page booklet listing from four to 14 questions in connection with each of 30 programs in its "Radio School of Biology"; a course outline for "Shakespeare's Comedies in the Theater"; a lesson outline on "Soil Management"; and a highly informative 14 page leaflet on "Fundamentals of Livestock Feeding," the latter three issued in connection with WKAR's "College of the Air."

Rutgers University, through its agricultural extension service, has been presenting "Radio Garden Club" and "Homemakers Forum" periods,

(c) Mountain radio listening groups. University of Kentucky bulletin. August 1, 1937. Also in "Rural Radio," Vol. 1, April 1938, p. 11-12.

two and one a week, respectively, formerly over WOR, Newark, only, but more recently (1937) over stations of the Mutual Broadcasting System. Programs are in script form, but digests are offered to listeners. To receive the garden club digests, it is necessary for listeners to join the club, at a nominal fee which helps cover the cost of mimeographing the service. Club membership is spread over 25 states, the District of Columbia, and Canada. (d)

This project is interesting also, it will be recalled, for its organization of sponsors as well as listeners. (See page 25).

LISTENER ANGLES

Several factors have been planned for discussion under this division: size and type of audiences, surveys, and what listeners want. Here again, as so often before, we find ourselves confronted with that enigma, showmanship. Especially is this true when we propose to speak of the size and type of audiences that listen to programs from the land grant colleges and state universities we have under consideration. Since additional views on this showmanship controversy, especially as applied to the size and type of audience, are available, suppose we introduce this sub-topic with them.

We cannot type our audience according to college student standards, according to Erskine (26). The motives of college students are more often social, athletic, or economic than intellectual, and none of these

(d) From a letter to the writer.

motives will operate on the air, he says. Elwood (25) and other commercial broadcasters insist that a large portion of the radio audience does not eagerly seek education, and that ways must be devised to intrigue and hold the attention of persons not primarily interested in their own educations. Opposed to this view are Robinson (73) who says of listeners that "At least ninety per cent of them do not need any showmanship or sugar-coating to induce them to appreciate that which is educational"; and Sproul (88) who maintains that education can't please the majority of listeners (here there is disagreement on the same side of the controversy) and advocates making programs as interesting as possible and waiting for the public to learn to like it; and Link (49) who frowns upon measuring the radio audience merely in order to put on a popular program, which he considers no answer to the question of educational broadcasting. "A large audience for educational programs is not necessarily the answer," he adds. "There must be a compromise between the size of the audience and what has merit from an educational point of view."

Results of the questionnaire indicate that such a compromise characterizes much of the education by radio from our institutions. Thirty-seven program directors stated their views on whether or not their programs are given for a general or specific audience. Seven listed their programs as aimed at a general audience; 14 at specific audiences; and 16 to both. Tyler gave the opinions of administrators

as to which type of audience college programs should serve: the results — 2.4 per cent for general, 5.8 per cent for specific, and 86.2 per cent both. The above figures of directors divide 19 per cent general, 38 per cent specific, and 43 per cent both.

Of the stations owned by colleges, four strive for general audiences, four for specific (all agricultural), and seven for both. Those institutions using commercial outlets are divided three for general, eight for specific (accounted for by the high proportion of strictly agricultural programs), and seven for both. It will be recalled that 26 institutions reported the presentation of farm programs, and 15, presentation of programs for high school groups. A tabulation of audience classifications against specific programs reported brings out an interesting relationship and indicates that the respondents are fairly sure of the type of audience their program will attract.

Table XIII. Special Programs and Type of Audience Reached

Special Programs	Institutions Aiming to Reach Audiences:			Totals
	General	Specific	Gen.& Spec.	
Farm	4	11		15
School	2	1		3
Fm. & Sch.		1	10	11
PTA			2	2
None	<u>4</u>	<u>2</u>		<u>6</u>
	10	15	12	37

In attempting to reach a specific audience, ten aim to do so all the time and 12 a large part of the time. Of 15 aiming at specific audiences, the large majority have farm listeners in mind. Only two

of those aiming at specific audiences do not have special farm or school programs, though one is a state agricultural college; the other has special programs for home gardeners and housewives. Of the four listing no special programs and striving to reach a general audience, one is an agricultural college, two are universities with sister agricultural institutions, and one a university specializing in "campus visits" covering popularized treatments of science, art, etc.

It appears that the majority of institutions are interested in a general audience, at least for much of their program presentations, with the possible exception of the farm and school programs. (Incidentally, nine of the specific farm program listings are by agricultural institutions using commercial outlets.) This brings to mind some earlier conclusions: that editing of talks, style of presentation, and type of introductions are not sufficiently directed at producing talks of general interest; and that program directors for the most part feel that program age levels should not be set too high but that many of them feel their programs are not meeting the 12-16 year standard they themselves have suggested.

In relation to the above question, and also to the matter of listener surveys, to be discussed shortly, the respondents were asked to give the estimated size of their general and specific audiences. So few of them knew these sizes that any tabulation would be useless. Most of them refused even to guess; and those which did give figures

present wide ranges. One college using a commercial station gave 65,000, and one with its own station, 75,000, for the general audience. In all probability this is a potential rather than a general listening audience. One college with its own station gave 70,000, another 56,000; and one with a commercial outlet, 50,000, and another 5,000 to 10,000. These were all the figures offered for general audiences.

With one exception, the specific audience estimates were more conservative, only one was definite. The exception was an institution using a commercial outlet and estimating 30,000 to 400,000 (correct). The highest estimate by a college-owned station was 15,000; then followed 10,000, 6,000, and 1,000. One institution using a commercial outlet estimated 3,000 to 5,000; and another stated that 5,000 lesson sheets were issued for a language broadcast, the one definite measure.

Surveys

The value of listener surveys is attested by the practices of commercial broadcasters and the urgings of educational leaders (1, 11, 21, 26, 32, 34, 39, 40, 49, 61, 69, 96, 102, 104). Perhaps Gill has presented the best view of the problem. He recommends, in the interest of educational broadcasting and radio as a whole, that these things be done: "1. Study the radio audience in its entirety -- who and where it is, and how it may be reached. 2. Study the audience reaction to various program types now available. 3. Analyze the audience as to composition by income levels, geographical sections, age, and race in its reactions and program preferences. 4. Consider any obvious

eccentricities of your audience, existing or potential, and construct programs which will appeal." Admittedly that is a large order, but one which might well receive serious consideration by educational broadcasters.

According to Hill, mail is now considered by most broadcasters to be only a contributory indication of listener feeling. Russell adds the mailed questionnaire to the non-dependables. And Stanton comes to the same conclusions after a careful survey of the field. He concludes that the atypical person is the one who writes, and that he (more often she) writes on the average of four letters a year, thus weighting the values of mail analyses. Stanton also concludes that properly controlled formal interviews yield the most valuable data. As a check on the interview, Stanton devised a recording device which registered the exact time radios in homes surveyed were turned on.

That from the listener alone can broadcasters learn what listeners want seems a logical and a well established conclusion. That some form of personal survey is most valuable is also well established. Some may raise the point that listeners either do not know what they want or do not know what is good for them. To the writer such statements seem more like excuses than arguments. Erskine points out that the educational broadcaster cannot fill his program needs from catalogues and curriculums. "A sound radio program in education must, I believe," he says, "be based not on educational theories but on the wishes of the people, found out by search and inquiry." Link adds

that "valuable clues by which to serve an enormous public in ways which will not only provoke its attention but be of enormous benefit to it" may be learned from a study of listeners' ideas on education. There is, of course, opposition to such views, as already presented by Robinson and Sproul early in this section, and by others under earlier discussions on "showmanship" and "age level." In justice to Link, it should be recalled that his is a middle course, advocating study of listeners but not with a view to the lowest common denominator of mass appeals, a course which this writer also favors.

At this point, let us take up the question of whether or not educational broadcasters make surveys of listeners, and then, what these surveys have revealed.

Tyler in 1935 found that three institutions had made some study of the size of the audience, and one had sought out other listener aspects. Griffith in 1934 (34) reported progress in presenting programs that listeners want but did not indicate the number of listener surveys that had been made. The author's questionnaire revealed that 20 institutions consider that they have some measure of listener reaction to their programs. This is about 60 per cent. But the replies to "how?" are more definite and revealing. Seventeen checked "correspondence," five have used mail surveys, three depend on extension workers to find out what listeners like or dislike, and only seven have used personal surveys. All the latter list, in addition, "correspondence."

In fact, most of the replies listed joint methods; however, six listed correspondence only, and two, extension workers' reports only. Six added the comment that results were very meager. One expressed the feeling that surveys are no more than guesses and not worth the effort.

It was also asked if listeners were requested to give criticisms and suggestions. To this, 15 replied "yes," four "occasionally," and 14 "no." These replies, together with the general lack of definite knowledge of the size, make-up, and desires of the audience, are shocking proof that education is doing a lot of "hand-out" broadcasting with the hope that it is being widely and favorably received.

The respondents were invited to state any significant criticisms given by listeners. Four noted that response was light and criticism almost nil. Eight others gave the following (numbers indicate the times the stated criticism was mentioned): poor radio speakers — 4; lack of general interest — 3; want more and shorter topics, want more popular music, want fewer talks, hours unsatisfactory for school reception — 1 each. One stated that appreciation for the better types of programs was frequent, and one, that listeners sent in suggestions for topics they wanted discussed. Two others referred to inclosed surveys, of which only four altogether were received. An analysis of these will throw more light on this phase of the study, though it is admitted that there is only slight ground for very broad conclusions. Two of the surveys in hand were for size of audience only, and one was

obviously greatly overweighted in favor of the station concerned. Another gave some indication of listener preferences: seasonal advice, first-person experiences of farmers and homemakers, news, and accounts of new scientific discoveries being to the fore; but no adverse criticisms were mentioned. The fourth survey appeared to the writer as a very honest attempt to find out just what listeners think of educational programs. A fair cross-section of the audience was taken and the sample was adequate. Furthermore, the survey was the second of its kind by the same station, and it was conducted by a disinterested organization using the personal interview method.

Though the criticism, "We don't like your programs," was prevalent among listeners surveyed, many positive criticisms were offered. Service reports and news were most in demand. Listeners stated that if more publicity were given in newspapers, they would listen more. These two findings bear out conclusions already given in this discussion. More entertainment; shorter talks (five minute averages); more interesting talks; dramatic sketches in history, science, current events, etc.; group rather than solo music; more variety in the program schedule; and more popularized material were other suggestions, many of which also bear out arguments of this discussion.

Program preferences listed by men, women and children, in both rural and urban areas, followed this order: news, religious music, accounts of important events, "hill billy" music, talks on current events, dramatic serials, comedians, market reports, homemaker programs,

popular music, sports, talks by important persons, talks on farm problems, physical culture, debates on timely questions, complete dramatic sketches, poetry, philosophy, classical music, talks on economic problems, talks on art and literature.

A former survey in the same area used a slightly different program listing, but in general the order of preferences was the same then as in the later survey. One important exception appears. The first survey placed the serial drama below the complete and historical dramas, except for women on farms, but the later survey places the dramatic serial above the complete drama for each class of listener, and for all combined, shows preferences of 43 per cent as against 24 per cent. Herein may lie a clue to one form of successful presentation of educational information. The writer is not advocating a "Buck Rogers" or "Amos and Andy" series, but he does feel that some of the elements which carry over interest from one program to the next might be employed with success and reasonable dignity for the sake of making education by radio more generally acceptable. (Cf. the discussion under "Program Series," page 46, "Characterizations," page 52, "Dramatizations," page 55, and "Age Level," page 59.)

Program Samples

In a letter accompanying the questionnaire, the writer invited each program director to send a copy of the 15 minute informational

program, given by his institution, which he considered most effective in listener appeal. Originally it was thought to present these programs for the ears of a committee of judges who would determine which of the several offerings had the most listener appeal. But similar tests have already been made (10, 27) and we have already presented the relative merits of dramatization, dialogue and talks programs. Then, too, problems of representativeness in such a committee, of duplicating normal listening conditions, and of presenting the programs with equal effectiveness appeared more difficult than the results would justify. Furthermore, the selection by directors is already somewhat subjective; so perhaps a few objective aspects plus the writer's own judgment will suffice (cf. 98).

Ten program directors sent 20 manuscripts. Most of them sent only one, but one sent eight, one sent three (two of them musical programs with comment), and one sent two. It is interesting and perhaps significant to note that only two sent talks programs, while four sent dialogues, one sent both talk and dialogue programs, two sent dramatizations, and one sent a farm news program. Though this sample is small, it reflects the general lack of listener appeal in talks programs.

One group of five talks, part of a series on gardening, treated subjects that would be of much interest to gardeners, but their general style would indicate that the attention of the average listener might not be caught and held by them. Opening sentences were none too vital and the material, for the most part, was factual and presented exposi-

torily. Narrative touches were rare and difficult words were many.

Another group of two talks, not connected but each one of a separate series, is subject to the same criticism. Like the others, they were given by authorities who were inclined to avoid the language of the common man. However, a third program for a homemaker audience, achieved both interest and some simplicity by having an aunt explain to her niece, a bride, some of the secrets of efficient housekeeping. Here a more natural treatment ruled out difficult words and broke the monotony of straight exposition.

Two talks on agricultural subjects came from another source. One dealt with extension service accomplishments for a year, and though it necessarily covered many items, it was comparatively free of data and was suggestive of narrative treatment; however, it was not absorbingly interesting. It occurs to the author that the radio presentation of a few outstanding accomplishments in a year of extension service would lend themselves well to short dramatic sketches. The other of these two talks succeeded in making the feeding of dairy cows interesting, by frequent use of questions, analogies, the choice of two plans, and some narrative. Sentences were not too long and easily understood.

Aided by a highly interesting subject and the opportunity to use the historical narrative, another talk happily joined fall apple-picking with old customs slipped in some crop figures, got off to the story of Johnny Appleseed, and then came back to the present with the recent rediscovery of his birthplace. The talk was only six minutes in

length but gave an adequate picture. It was a good topic well handled, but the subject, of course, offered an opportunity that comes none too often in agricultural radio schedules. We find in it, though, most of the good points listed by Tyler (93) and others (12, 51, 70, 111).

The agricultural news program hardly needs comment. Naturally its newness and its variety of subject matter, with items for both farm men and women and for young farmers, made it interesting. Being generally free of figures and narrative in spots also helped; and it was well prepared. The possibility of substituting programs of this kind for long talks is interesting, and would help solve some difficulties.

Of the four dialogue programs submitted, one brought a county agent and a farmer together for a general chat on farm problems. Though a little unnatural in spots, it did not fall into the error of short questions from one and long answers from the other. On the whole it was an interesting 15 minute presentation, ending with a brief but effective summary by the farmer. And in this connection, this comment is interesting — it comes from a state other than that which furnished the dialogue just mentioned:

Except for an occasional outstanding radio speaker, the era of educational radio talks is a thing of the past. People want to be educated but they want to play an important part in the educating role themselves. Therefore, we are gradually working toward more and more radio listener participation in our programs, using opinions received from people throughout the state, and putting people on the programs.

Two other dialogue programs carried out much the same idea, but in these cases the farmer parts were portrayed rather than real. Both are subject to the same criticisms given above; but all three use the dialogue technique with fair success in getting across ideas and making facts more interesting. The great difficulty seems to be in obtaining naturalness of expression and an easy flow of ideas. Some of this difficulty may arise from trying to get too much information into one program (57).

The fourth dialogue presentation submitted dealt with the Indian as a subject of sculptors. The topic was interestingly treated and, except for the tendency to be one-sided in its discussion, naturally handled. (One-sidedness seems almost inevitable where the novice-authority combination is used.) Except for this fault, the writer considers this the most finished of the four dialogue presentations.

Of the two dramatizations offered, one re-enacted highlights of the week's news. The script was prepared by journalism students and the presentation was made by a "radio guild." Though high in listener appeal, many would not class it as educational, except for those students who prepared and presented it. The other dramatization skillfully wove conversation, of a couple fishing, with an Indian legend and some geological facts to explain the origin of a lake. Here again the strictly educational features were kept in the background, at least until the very last; but when the geological facts were presented, the listener must have been in a highly receptive frame of mind. How the

lake was formed could have been told expositoryly in two minutes. The dramatization took 15 minutes. But legend, music, suspense -- all combined to make the listener eager for the facts -- active reception rather than passive.

This sketch was sandwiched between two 15 minute musical programs, the whole presentation being offered as "Forty-five minutes of model educational broadcasting," presented before the annual meeting of the American College Publicity Association. The first of the three presented comments on and selections of "Folk Music of America" by a well known authority, John Jacob Niles. The third unit, entitled "Fifty Years of American Light Opera," one of a series, offered comments on and selections from Victor Herbert's light operas, in all, four numbers and a little history of the writing and original performances of two of Herbert's works. Comment made up less than a third of the program. And how educational were these music programs? Is one being educated when he listens to music that isn't fully analyzed and explained? The writer will not attempt to answer these questions. But, assuming affirmative answers, then cannot it be said that dramatizations well done are also educational? Good musical programs have listener appeal, but the appeal is reduced in proportion to learned and weighty comment, that is, for the average listener. Too many dry facts spoil the program. This same condition, it appears to the author, carries over to the spoken program. As listener appeal is

increased, educational values, from the purely factual standpoint, must be decreased. This has been true throughout these samples -- the two dramatizations, a dialogue that mixed fact with characterization and dialect and some humor, and a talk about Johnny Appleseed. In listener appeal these no doubt would rank highest; but for information contained, any of the other manuscripts are superior.

From this analysis and discussion of sample programs, and from many of the factors and opinions considered earlier in this thesis, it appears that there is some middle ground between entertainment and factual information for which the educator who uses radio must strive. If he is too factual, he cannot reach the most listeners -- he will fail to reach many of those to whom more education would be most helpful. If he is too entertaining, he runs the risk of not being educational at all. Those who want education will listen, perhaps, to factual presentations uninterestingly presented, but it is a question in the writer's mind if radio should be used merely to reach a group, the members of which, in all probability, have the urge and the initiative to find enlightenment from other sources. This attitude has, of course, colored this whole discussion and will necessarily be reflected in the conclusions which follow.

SUMMARY AND CONCLUSIONS

This study has revealed that the two chief problems of educational broadcasting at the 71 land grant colleges and state universities, approximately half of which replied in full to the writer's questionnaire, are finances and personnel, interrelated with each other and with other factors in the study. (See pages 1 to 7.) Institutionally owned stations reported average budgets of \$12,500 and needs for \$32,000 or more. Some authorities estimate that at least \$75,000 should be provided for a 1,000 watt station. The average provision for half-hour daily programs over commercial stations is reported to be \$5,000, but for comparison the \$130,000 allotted to the Office of Education project may be given. Experimental work in radio has recently been given large grants, and there is some hope that regular educational activities will be treated likewise. (p. 8-11.)

Burdens upon the station staff members were found to vary from seven broadcast hours a week to 40, with an average of 23 and a mode of 30. Where commercial outlets alone are used, it was found that on the average one person was responsible for 6.5 quarter-hours a week.

(p. 11-13.) Those institutions generally conceded to be doing the best work are those with by far the lighter burdens per person.

Program directors gave an average rating for talent of 45 per cent good, 31 per cent fair, and 24 per cent poor. Only eight directors

gave a percentage for "good" talent of 70 or better. Only one institution pays faculty talent for broadcasts, one lightens other duties, two do so to some extent, but the remainder, 34, require radio participation in addition to regular duties. (p. 14-17.) The fallacy of this practice has been pointed out, and it is the recommendation of most authorities that broadcasting be limited to those best qualified and that they not be required to carry heavy burdens.

No institution reported holding classes to assist radio speakers in improving techniques. Fifteen out of 31 institutions reported the possession of transcription-making equipment, but at only four is the equipment used regularly by speakers for self-criticism; seven reported "a little." (p. 18.) The writer feels that the mistaken belief that all educators are fully qualified to broadcast has stood in the way of improvement, and that classes and self-criticism where equipment is available would be inexpensive steps toward improvement.

Though most institutions use the committee method of determining what shall be broadcast, a great deal is still left to the individual speaker, full coordination of broadcasting with the other institutional activities is decidedly lacking, and a broad, well-rounded program viewpoint is lacking. It is also likely that narrow planning excludes a full appreciation of the listener's viewpoint. Reports indicate that, on the average, programs are planned three months in advance, especially where committees do the planning. (p. 21-26.)

Only nine institutions having stations and four using commercial outlets make it a practice to supply emergency information. While the

inclusion of this type of material may disrupt carefully planned schedules to some extent, there is evidence that listeners desire it, especially rural listeners, and services might be improved by including it. (p. 26.)

Though ample material is generally available, directors report, there is definite limitation, in point of time and ability of the radio talent, on the amount of good material presented as good programs. Many other limiting factors were mentioned. (p. 27-28.)

Programs classed as entertainment were reported as occupying about 35 per cent of the broadcast time, a drop of 10 per cent since Tyler's report of 1933. Nearly all the entertainment is music. Though definite comparisons are next to impossible, there appears to be a trend in informational features toward more book-reading, travel talks, popular science and news programs. History and languages are most common as subjects for formal education by radio. For the most part, program schedules displayed careful attention to balance, with few extended periods of talks programs. (p. 29-30.)

Twenty-six out of 36 institutions report farm and home periods, an increase of seven per cent since 1932. The usual practice is one hour for institutionally owned stations, and a quarter-hour over commercial outlets, daily. Fifteen reported programs for high school students and 20, none. This represents very little change from the situation reported by Tyler. Only two reported cooperation of the state department of education in arranging listening classes, and two reported cooperation from high schools. It appears to the writer that

more cooperation in this field would be beneficial. (p. 31-32.)

After presenting various opinions on showmanship (p. 34-39.), the writer concluded that for the most part educators are no longer opposing showmanship in educational radio, but he found that, in general, efforts to make presentations as attractive as possible are lacking. Eighteen institutions reported editing of talks, 14 no editing, a condition practically unchanged in the last five years. Though 21 reported that efforts are made to avoid the academic manner, with four reporting no effort, six some effort, and two following a middle course, nine use a professional introduction for their speakers, eight use a personal one, and nine reported both. Though this may seem a trivial matter, the author has given reasons for an opposite view. The use of the professional type of introduction is taken as a fair indication that the academic manner is still largely preserved. (p. 39-44.)

Optimum time limits for talks, in the opinion of directors, should be 11 to 12 minutes. The reported general practice also approximates this, 10 to 15 minutes being most usual, though extremes of two and 30 minutes, and 50 minutes for some classroom broadcasts, were listed. (p. 45-46.)

The value of rehearsals seems generally accepted, but as to actual practice directors reported as follows: 11 "yes," 11 "no," and 11 "some," for programs in general. For talks especially: 11 "yes," 15 "no," and four "some." (p. 47-48.)

In these last three items, with the exception of time limit of talks, in which practice generally conforms to approved standards, there seems to be room for improvement that would require little expenditure of time or money, or certainly not more than the results would justify.

Nineteen directors were and four were not of the opinion that there is anything to be gained by presentation in series. Only three reported a successful carry-over of interest from one program to the next in a series; six reported partial attainment of carry-over. Where it is done, the "usual methods" are used, but apparently they are not as efficiently employed as they might be. The writer believes that more careful planning would help to overcome this deficiency, together with points to follow. (p. 49-51.)

Ten directors believe that a fictitious character created to carry a series would be an effective aid; 13 do not; nine think the technique may be used sometimes. This technique is also recommended as one way to give a program series a "personality." (p. 52-54.)

Fifteen directors report the use of dramatization in presenting educational material; 13 others have used it some; eight have not used it. Only one felt it would be ineffective. Seventeen reported the use of dramatization as successful, five fairly so, one not at all. The main reason for unsuccessful dramatizations was given as lack of time for training talent. All directors agreed that dramatizations require more time and talent than they have available. A report on what subject matter fields directors thought suitable for dramatization showed

a wide range. (p. 55-59.) Since dramatization is generally regarded as one of the most effective means of presenting educational material in a listener-attracting way, thought should be given to providing the time and talent required by this technique.

The majority of directors think that the age level of programs should not be too high, preferably from 14 to 16 years. But only ten institutions, in the directors' own opinions, are successfully presenting programs at these levels; six are partially meeting and six feel that they are not meeting a 14-16 year requirement. This is a highly controversial point, but the writer feels there is ample justification for presenting education by radio in a simple manner. The views of directors bear out this contention. (p. 59-63.)

Twenty-five institutions do and six do not give publicity to their programs. The majority depend on newspapers, but some other methods are used. (p. 64-68.) Directors are almost unanimous as to the value of such publicity, but three of the six reporting no publicity do not feel that the lack of it is harmful.

Twenty-eight institutions listed one or more program supplement activities, the issuing of bulletins, the answering of letters, and the supplying of copies of talks ranking in that order. Other supplements were also listed. (p. 68-71.)

Ten institutions reported their programs as directed at a general audience, 15 at specific, and 12 at both. Most of the directors declined to estimate the size of their audiences, either general or

specific. (p. 71-75.) However, 20 feel that they have some measure of their audience, if not as to quantity, then, perhaps, as to quality. Ways of knowing the audience were given: correspondence, listed by 17; mail surveys, five; extension workers, three; and personal surveys, seven. With listener mail and mailed questionnaires generally regarded as unreliable indices, how little educational broadcasters really know about their audiences, actual or potential, is evident. Of a small handful of surveys supplied by directors, only one can be considered of great value as a measure of audience reactions. The aloofness of educational broadcasters is further revealed by the fact that only 15 out of 33 make a practice of asking listeners for criticisms and suggestions. The few criticisms which were reported by directors bear out many of the views tendered in this discussion. An analysis of some sample programs likewise, in the writer's estimate, confirms these views. (p. 76-80.)

It is the writer's general conclusion that, with the possible exception of program balance, quantity of farm and home programs, length of talks, publicity, and program supplements, educational programs from land grant colleges and state universities bear marked limitations, some of which can be overcome at little cost and effort, but for the most part traceable to inadequate financing and personnel. Though there is evidence of progress toward the presentation of better and more

acceptable programs, there is much yet to be done. There seems to be a good deal of evidence, some derived from practical observations, some from experiments, and some from authorities, as to what should be done, or at least, as to what should be tried, in the way of improvement.

From a practical viewpoint, a survey of this type, where for the sake of comparisons and brevity everything is brought down to the average, may be as detrimental as helpful. It is to be hoped that those institutions with programs below average will make some effort to attain at least average standards; but at the same time there is the danger that those which are average or above will accept a report of this kind as vindictive. This will be especially true where faith in radio is none too strong, or where funds for its constant development and improvement are not easy to find. On this point the author would reiterate that, by available standards and concensus of opinion, those institutions which are doing the best work with radio broadcasting are without exception the ones putting the most money and time into it.

COPY OF LETTER SENT WITH QUESTIONNAIRE

(Kansas State College, Department of Journalism letter head)

December 6, 1937

Dear Sir:

The attached questionnaire is designed to bring up-to-date some of the experiences in land grant college and state university radio broadcasting. If you will take the time and trouble to answer those questions which apply to your particular activities in this field, you will, of course, contribute to the completeness and value of this study. It is our plan to make the results of this survey available to you and others who reply.

If you are not now doing any radio work, and have never done so, please drop us a line to that effect. If you have done broadcasting and have discontinued the work, please fill out the first page as fully as you can, and answer any of the other questions you think would be helpful.

To keep the questionnaire as short as possible, we have included a minimum of questions. But please do not feel that this condition should limit your reply; for if you have views or findings related to the questions we have listed but not covered by them, please feel free to present them.

It will be additionally helpful if you will inclose with your reply the following: (1) a copy of the script of the 15-minute informational program, given by your institution, which you consider was most effective in listener appeal; (2) a summary of your most recent survey of listeners; (3) a typical program schedule, for a week or month, whichever is customary in your service; and (4) any available literature telling of your program work, or suggestions as to where such accounts may be found.

Since the amount of material we hope you will send us will not go into an ordinary envelope, and since there will be such variation in this respect, we are inclosing, by way of return address, only the attached sticker. Needless to say, it will be appreciated if you will use it between now and Christmas.

Very truly yours,

(Signed) H. J. C. Umberger, Dean
 Division of College Extension
 C. E. Rogers, Head
 Department of Journalism
 E. D. Michael, Graduate Student
 (Assistant Editor, Virginia
 Agricultural Extension Division)

QUESTIONNAIRE SAMPLE

On following pages will be found a sample of the original three page questionnaire.

It will be noted that information obtained in parts II and III has not been included in the report. It was originally intended that a brief history of educational radio activities by land grant colleges and state universities not included in Frost's "Education's Own Stations" (30), that is, institutions which have never had their own broadcasting stations, would be drawn up; but complete information was not forthcoming and the writer has not had time to follow the project to completion. If circumstances permit, it is planned to complete this brief history in the near future as a separate, and free-lance, contribution.

It will also be noted that the order of the questions and the order of treatment in this report are not the same. This is because the questionnaire was prepared, in order to insure adequate time for returns, somewhat in advance of complete readings. It was based largely on the experience of the writer, as already mentioned. It was, however, submitted to several critics, including others with experience in directing educational radio programs.

RADIO QUESTIONNAIRE

Name of institution: _____

Name and title of radio personnel, and percent of time given to radio:

I. Radio Program Outlets:

A. Own station; Call letters _____; Power _____; Kilocycles _____.
(day) (night)

1. Please note any significant changes in power and allocation: _____

B. Remote control through commercial station; Call letters _____; City _____

Power _____; _____; kc _____; Time free _____ or paid for _____
(day) (night) (amt. per program)

C. Personal appearances of faculty and extension staff at commercial stations:

Total number of stations used _____. Total $\frac{3}{4}$ hours per week presented _____.

D. Mail service to stations; Total stations _____, Total $\frac{3}{4}$ hours per week _____.

II. Date of first program over own station (or by remote control over commercial)

_____. Date of first personal appearance over commercial station _____.

Date of beginning mail service _____.

If services have not been continuous since beginning, please note lapses and reasons: _____

If you regard your first programs as significant in the early history of radio broadcasting, and especially from the educational standpoint, please elaborate and attach.

III. Please give dates (year) and character of major changes in schedules, length of time on air daily, general policies adopted to improve service:

IV. Please give a proportional analysis (or send a representative program schedule) of the kinds of information and entertainment included in your broadcasts:

Agriculture _____	Engineering _____	History _____	Entertainment: _____
Sciences _____	Languages & _____	Art _____	Music _____
Physical _____	Literature _____	_____	Drama _____
Social _____	Religion _____	_____	Athletics _____

V. Do you present a special "farm and home" period? _____ . Total $\frac{1}{4}$ hours daily _____

VI. How is program material determined?

- a. By scheduling departments or speakers and letting them choose their own topics? _____
- b. By committees, department heads, or program directors planning definite series? _____
- c. If you have tried both, which do you consider more effective (a) _____ ; (b) _____
- d. How far ahead can you plan your programs? _____

VII. a. Do you give promotion publicity to your programs? _____ ; How? _____

b. Do you consider this a valuable adjunct? _____ ; Or, if promotion is lacking, do you feel this lack limits the acceptance of your programs? _____

c. Comments: _____

VIII. a. Do you have definite checks on listener reaction? _____ ; From correspondence _____ ; Mail Surveys _____ ; Personal surveys _____ ; Other _____

b. Do you ask listeners for criticism and suggestions for program improvement? _____

c. Please list some of the most significant criticisms: _____

d. If available, please supply a summary of your most recent survey.

IX. (CONFIDENTIAL) What, in your opinion, hampers your radio work most--rate the following 1,2,3,4, and note "other", if any: (a) Lack of finances? _____ ;

(b) Untrained personnel? _____ ; (c) Insufficient program material? _____ ;

(d) Poor technical equipment? _____ ; (e) Other _____

(aa) What is your budget (annual)? _____ . What sum would be adequate for best results (not including cost of increasing power)? _____ .

(bb) What percentage of groups or persons appearing on your programs are, from the broadcasting viewpoint, Good _____ . Fair _____ . Poor _____ .

(cc) Is insufficiency of program material, if any, due to lack of time for speakers and others to prepare good material? _____ ; or to their inability to adapt material to radio? _____ ; or their willingness to cooperate? _____ ; or is such material not to be had? _____ .

(dd) Do you have equipment for making transcriptions? _____ . If so, do speakers use transcriptions for self-criticism? _____ .

(ee) Please state any other factors you regard as harmful to the growth and/or improvement of educational radio work at your institution (please be frank): _____

50

- X.A.a. Is radio talent (from faculty) paid for? _____; Compensated by lightening of other work? _____.
- b. Is radio broadcasting coordinated with or entirely separate from resident instruction? _____. Are classes in radio writing and speaking held for faculty participants? _____.
- B.a. At what mental age do you think educational radio programs should be directed? _____. Do your programs match this standard? _____.
- b. Do you think each program in a daily or weekly series for a given audience (homemakers, farmers, etc.) should carry over interest to the next program? _____. If so, are you able to do this successfully? _____. How? _____
- c. What have you found to be the optimum time limit for educational talks? _____ Do you think such a limit should be carefully adhered to? _____
- C.a. Are radio talks edited for grammar? _____; For good radio technique? _____
- b. Are programs rehearsed before presentation? _____; Talks especially? _____
- c. Do you use a professional or personal introduction for speakers? _____
- d. Do you believe there is anything to be gained by building up a fictitious character, like "Aunt Sammy," in presenting regular features? _____
- e. Is there conscious effort in your program to avoid the academic manner? _____
- D.a. Is the radio employed to broadcast all emergency information, especially for rural audiences, such as frost warnings, disease outbreaks, etc.? _____
- b. Have you attempted to dramatize educational material? _____
If not, is it because you feel it would be ineffective? _____; or does it require more time and talent than is available? _____. If you have, has it been successful? _____, or unsuccessful? _____ Why unsuccessful? _____
- E.a. What efforts are made to follow up each educational talk or program?
Bulletins offered _____ . Copies of talk _____ . Write in for more information _____ , Contact with field men _____ . Any other _____
- b. In your programs, do you strive to reach a general audience? _____; or specific audiences? _____. What is the estimated size of your general audience for any one program? _____; of the specific? _____.
- c. Do you broadcast programs for high school students? _____. If so, do you have the cooperation of the state department of education in arranging listening classes? _____.
- F.a. Please list the three educational fields you think best adaptable in radio to -
- | Talks | Dialogue | Dramatization |
|-------|----------|---------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

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