

A STUDY OF EDUCATIONAL TELEVISION AS
A METHOD OF TEACHING

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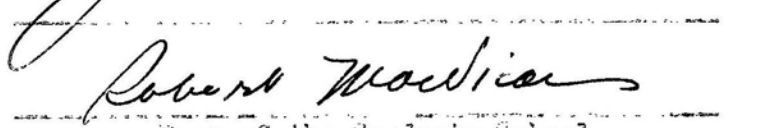
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PREFACE AND ACKNOWLEDGEMENTS

The time to start educational television is when interest is high. The interest in TV of all kinds is high right now. Television has been here since 1946 and we have had educational television since WOI TV at Iowa State College began to broadcast in 1950.

This paper, therefore, is meant to be timely. It reviews what has happened in a few short years to make television serve a most important purpose, education, and it also evaluates television in Oklahoma from a student's point of view.

Indebtedness is acknowledged to Dr. James H. Zant, Professor of Mathematics, who has contributed his time for criticism and suggestions; and to Shirley Hawman, his secretary, for her help in the typing and mimeographing of my questionnaire; and to the following for their help in preparing the questionnaire: Mrs. Elaine Tucker, Director of KETA-TV; Miss Berniece Gordon, Teacher of Mathematics; Mr. Howard Brown, Teacher of Geology; Mr. Walter Brown, Teacher of Physics; Mr. W. H. Taylor, Supervisor of Secondary Education Programs; and Dr. M. W. Glasgow, Representing the State Department of Education, all of whom are from Oklahoma City.

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CHAPTER I

BACKGROUND OF EDUCATION'S ROLE IN TELEVISION

A Brief History of Educational Television

When one begins a study of any topic, an intelligent approach would seem to be to delve into the history and background of the subject. Therefore, the following material has been included to furnish this background.

For more than two decades, educators have been participating in various kinds of television activities.

Probably the most extensive of early endeavors in educational television programming were the more than 400 programs transmitted over a mechanical scanning system at the State University of Iowa's experimental station W9XK between 1932 and 1939. The station used a transmitter constructed by the electrical engineering department. The university's radio outlet, WSUI, transmitted the sound accompanying the pictures.

W9XK's telecasts included lectures in art, engineering, shorthand, botany, and astronomy, among others, as well as entertainment events. On one occasion an oral hygiene demonstration showed the proper technique for brushing one's teeth. A dramatic arts student, who wrote his own script and directed the cast, produced a TV drama over W9XK as his master's thesis.

In May 1938 in New York City, C. C. Clark presented one of the early educational programs when he demonstrated the principles of electronic TV for about 250 students from New York University science courses. NBC transmitted the experimental program from the third floor of the RCA building to 25 receivers watched by the students on the 62nd floor. The show was 45 minutes long. Students asked questions via two-way radio communication and were answered by the instructor on the screen.

The first TV station owned by an educational institution was Iowa State College's commercial outlet WOI-TV in Ames. Iowa State was the only school to have obtained a license by 1948 when the Federal Communications Commission froze channel assignments in order to reexamine the allocation picture. However, since then, educators have become increasingly concerned with efforts to secure TV channels for educational use.

On April 14, 1952, the FCC lifted the freeze on television assignments. The commission allocated 242 channels to noncommercial use--80 VHF and 162 UHF.

In May, 1953, Governor Murray, signed legislation in Oklahoma authorizing the first statewide educational television system.¹

The Growth of Educational Television

Educational Television is presented in a number of different ways one of which is the plan whereby a commercial station allots a certain time period for educational purposes and a high school or college instructor or students present a lecture or a demonstration of some sort during the allotted time period. This was when educational television was in its youth. Now, many states have their own educational television stations.

According to Callahan, educational television has really grown. It is no accident that the rapid growth of a new kind of television occurs at the time viewers see commercial TV leveling into a conservative holding to formats that sell. Some years ago educational and community organizations predicted America's need for two distinct kinds of television. These pioneers put their efforts into local experimentations in programming and production at commercial stations. They gained instruction in TV techniques. Their programs brought concrete results. The broadcasters handled the costs and received dividends in public service. The cooperative ventures proved for the most part delightful and beneficial to both parties.

The educational and community groups evaluated their experimentations in educational television and were pleased with the results.

"Where do we go from here?" they asked each other. The more they thought about the potentialities of educating the general public--communitywise, healthwise and jobwise--and instructing public school and college students in a variety of fields, the more educational TV became a thing apart from commercial stations. As specialists in the various fields of study put their minds together the programming load became stupendous. "A job for generations," they realized. Their few seasons of telecasting had scarcely scratched the surface. Could they ask their friends, the dollarwise broadcasters, to take on the development of this new kind of television? Already it was apparent that it entailed new and varied formats, unlike the tried ones with which broadcasters could get sponsors. It called for performers who were not actors in the professional sense. In fact the commercial studio's and equipment were all the educators needed from

¹W. K. Cumming, This is Educational Television (Ann Arbor, 1954), pp. 1-2.

their local broadcasters.

"Why not have studio's of our own," asked some, where our hours of experimentation can be longer...where TV techniques can be created to suit our purposes? Now that we know we've got something, let's develop it to the fullest." To the fullest would mean educational stations. There followed discussions, forums at conventions, articles in newspapers and in popular and learned magazines.

Audio-visual supervisors in public schools and college and university radio-station comprising the membership of the National Association of Educational Broadcasters rose as one with the explanation that being a part of the commercial-station programming was satisfactory while they were experimenting with television for education. But now that they know what the future can hold, it would be a grave mistake to stop. "Are we going to curtail the chances for a richer education to come by letting what seems 'good enough' now forestall full growth in the future?" they asked.

The association for Education by Radio--Television, with a membership of teachers and educational broadcasters, many of them connected with commercial stations, filled its Journal with articles and editorials that kept its members up to the minute on points of view and current successes in TV teaching. Everyone was becoming informed, many more schools and colleges were turning out successful telecasts. Curriculum Committees began to study in-school TV programming, while PTA groups and local TV dealers donated and installed sets in classrooms and auditoriums.²

Formation of the Joint Committee on Educational Television

The time for concerted effort had arrived if educational television was to have a future.

Seven educational organizations stepped to the lead: the American Council on Education, since 1918 a clearinghouse for public and private school systems; state departments of education, universities, and colleges; the Association for Education by Radio-Television, already mentioned as being active from the beginning; the National Council of Chief State School Officers, made up of state superintendents and commissioners; and the National Education Association, devoted to the interests of its teacher-members, 450,000 strong. Each organization selected a member to serve on a joint committee that could best present the case for educational TV to the FCC. It began its work in October of 1950, and through the following three months of hearings this committee presented witnesses with evidence that led the FCC to tentatively reserve 209 channel assignments for noncom-

²Jennie Callahan, Television in School, College, and Community, (New York, 1953), pp. 12-13.

mercial educational use. This was on March 22, 1951, the day the Joint Committee on Educational Television (JCET) was established with offices in the Capital and Richard Hull, followed by Ralph Steele, as Executive Director. A grant of \$90,000 from the Fund for Adult Education, established by the Ford Foundation, financed the comprehensive program of legal assistance to educators, to help them define and protect their rights to the frequency assignments. As a legal party of record to the FCC proceedings the JCET helped the following educational and community groups file formal statements in response to the FCC's proposal for reservations: 325 colleges and universities; 271 public and parochial schools; 25 state departments of education; 30 municipalities; 16 libraries; 6 adult-education groups; and 165 public-service agencies including parent-teacher associations, chambers of commerce, art museums, newspapers, civic organizations, and other professional and educational associations such as the American Association of University Women, League of Women Voters, ministerial associations, Boy Scouts of America, Girl Scouts of America, Federation of Business and Professional Women, Federation of Women's Clubs, YMCA and YWCA.

The need for additional educational allocations was pointed out, and on April 14, 1952, when the "freeze" was lifted, educators were awarded 242 TV channels for noncommercial stations. The American press widely acclaimed the educational allocations and the achievement of the JCET. The FCC found it an expert liaison that had facilitated detailed legal procedures in an unprecedented way.³

The National Citizens Committee For Educational Television

If educational television were going to survive, it needed more than one organization to create interest and support for it. The National Citizens Committee further strengthened the cause of educational television.

The National Citizens Committee for Educational Television has been formed to work in collaboration with the JCET to strengthen public support, accelerate planning wherever possible, and make suggestions on fund raising. Rallying citizen support is essential to establish financial strength through private gifts and through forceful public action in persuading local budget committees and state legislatures to vote appropriations. Cochairmen of the committee are Dr. Milton S. Eisenhower and Marion B. Folsom, Chairmen of the Committee for Economic Development. Its members hail from all sections of the United States, and all have distinguished themselves through local or national leadership in financing, programming, or early development of educa-

³Jennie Callahan, Television in School, College, and Community, (New York, 1953), pp. 13-17.

tional TV. Executive Director Robert R. Mullen formerly with the Economic Corporation Administration, has his headquarters in the Capital. He is in close touch with the Fund for Adult Education, which has earmarked five million dollars for special aid amounting to one-third of the cost of building stations in several communities, provided the community committees can raise the other two-thirds through public or private funds.

This committee has found that electronic equipment for an educational station costs from \$100,000 to \$250,000, depending upon local conditions and the size of the geographic area to be served. Studio costs are more difficult to estimate since many communities already have space available without having to build a suitable structure which might cost as much as \$150,000. Operating costs, too depend upon a number of variables: the hours the station is on the air each day, the staff salaries, power, and equipment upkeep, as well as production budgets.

"A figure of between \$150,000 and \$175,000 a year is considered the minimum for yearly operations," according to the Committee. Created to help hurdle the financing of noncommercial stations, the National Citizens Committee is dedicated to the conviction that strong concerted effort on the part of educators will make it possible to share costs and services, thereby lightening the load on every community founding an educational station.⁴

The Oklahoma State Network

Oklahoma was one of the first states to make provisions for a state-wide educational television program. This seems to show that Oklahoma was quick to grasp the significance of this newer method of education as a necessity for keeping pace with our constantly changing world.

The Oklahoma Legislature was the first state legislature to establish a state-wide network. In 1951 it requested the FCC to reserve ten TV channels in the state for educational use, and Governor Johnston Murray called a conference for concerted planning. The bill passed by the legislature in the spring of 1953 provided for stations in Oklahoma City, Tulsa, Muskogee, Tishomingo, Clayton, Woodward, Enid, Lawton, Elk City, and Guyton. It set up a thirteen-member Educational Television Authority with membership composed of the president of the University of Oklahoma, the president of Oklahoma Agricultural and Mechanical College, the state superintendent of public instruction, the chancellor of the Oklahoma State Regents for Higher Education, and representatives of additional public and private educational institutions of the state.

⁴Jennie Callahan, Television in School, College and Community, (New York, 1953), pp. 17-18.

The bill also established a thirty-five member advisory committee of civic and business groups, selected by the authority, to keep the state-wide TV planning close to local needs. The legislature authorized the Educational Television Authority to issue bonds and directed the state treasurer to transfer to the Educational Television Authority, for the purpose of retiring these bonds, all revenues accrued to the State Public Building Fund which were not otherwise appropriated. State-owned oil properties swell the annual income of this building fund to over \$200,000. The network has also received large gifts from private interests.⁵

⁵Jennie Callahan, Television in School, College and Community (New York, 1953), pp. 21-22.

CHAPTER II

USE OF TELEVISION IN EDUCATION

Television as a Source of Communication

Probably the best use to which educational TV can be put is the presentation of material to several groups of people by one instructor who is an expert in his field. The boundaries of knowledge are being broadened constantly and unless we can keep disseminating this knowledge to the public we are apt to fall far behind those forces which are hostile to our great American way of life. As stated by Newson:

Television itself is a means of communication. It is nothing more than that. Whatever programs appear on the screens in the homes of America are not to the credit or debit of television itself. That responsibility lies with the producers, the writers, and the sponsor, with their convictions, accurate or not, of what the public wants to see and hear. As a means of mass communication, however, television is magnificent, undoubtedly the most effective means yet devised by man. To the sound of the radio it adds the eyes of the camera. It has an immediacy and a flexibility that the cinema lacks. It is exciting and attention-compelling. Its educational possibilities are tremendous.¹

Presently Known Assets

The assets of presenting subject matter via this new medium of educational television are many, a few of which will be listed here.

1. Large audience can be influenced.

This has almost revolutionary implications for education. Never

¹Carroll Newson, A Television Policy for Education (Washington D. C., 1952), p. 138.

before has education had the opportunity of reaching simultaneously even a tiny fraction of the potential television audience. There are now approximately 17,000,000 television sets in the United States. It is estimated that by 1960 there will be 50,000,000 sets in use. It is probable that educational television will never be able to hold the great mass audiences achieved by some commercial entertainment programs. But that does not mean, granted effective programming, that the audiences for educational television need be small. Present indications are that they will not be small. For example, commercial surveys estimate that the University of Michigan television hour now has an audience of from 80,000 to 100,000 each Sunday afternoon at one o'clock. The latest estimate for the Johns Hopkins Science Review, carried over 22 stations of the Du Mont network at 8:30 p.m. on Monday, is that this program enters 280,000 viewing homes, with an average of $2\frac{1}{2}$ viewers per home.

2. Television goes right into the home.

This, too, has revolutionary possibilities for education. Correspondence courses, which have the same advantage and which have been very popular, can now be supplemented in a major way by television. The medium makes readily available educational, cultural, and informational opportunities that previously have been quite inaccessible. The value for handicapped and shut-in children is obvious, and that group is already being reached by telecasts of the New York City Board of Education. Even more important, literally in their millions are the busy housewives by day, the tired men and women workers, professional or otherwise, in the evening. It has not been easy in the past for most individuals in these groups to continue with their educational and cultural interests. Now, with television in the home, this is changed. In this day of urban congestion, a device that brings education and culture to the consumer rather than moving the consumer to the source of his interests is important both in terms of economy and comfort. In the home atmosphere also, television has a remarkable quality of informality and intimacy which, if skillfully handled, should contribute markedly to the learning process. This home atmosphere has implications even beyond the individual family. In Cleveland, for example, it is known that over 200 groups of neighbors are getting together to listen to educational broadcasts from Western Reserve University and to discuss the programs afterwards.

3. People and properties can be utilized better.

Television with its multiple separate outlets from a single originating source, can mean a greater utilization of brilliant individuals, special talent, and complicated or expensive properties. Stimulating teachers may appear in many classrooms and innumerable homes simultaneously. The leading authority in any field may discuss his subject once with perhaps more effect than in dozens of different appearances before small groups. One concert of an orchestra or a soloist, one performance of a play, may reach many thousands of persons. Programs telecast from the Iowa State College station have proved that an agricultural expert can reach more farmers in a 30-minute demonstration than he could in weeks of travel around the country side.

4. Simultaneity adds effectiveness.

Simultaneity is one of the main advantages of television over

films. Nothing is cut and dried. The unexpected may always happen and often does. Events are viewed while they are actually happening. All of this helps hold the attention and adds to the interest and excitement of the medium. This characteristic seems in a very real way to enter into the educational process and increase the usefulness of television as an educational tool.

5. Television can teach.

There is now convincing evidence from numerous experiments that television can be utilized successfully as a teaching medium. Whether it be the experience with the telecourses at Western Reserve University, or at the Special Devices Center of the United States Navy, at Port Washington, Long Island, all agree that television is an effective educational medium. Evidence indicates that television is as effective as traditional classroom teaching in the amount learned and retained. In fact at the Navy's Special Devices Center there was some indication that the viewers learned more and retained more through television than in the regular classes. The newness and fascination of the medium, and more competent or better-organized presentation may have accounted for this seeming superiority in individual learning.

Television also can make available on the video screen scientific demonstrations that would normally be available for close study to only a very small group of viewers. This fact is being used to advantage already in the teaching of medicine by closed circuit television, and the possibility of using the idea in many types of educational effort is being explored.

With these specific assets in mind, what are the major opportunities that television presents to education?

Major Opportunities

1. Classroom instruction.

The use of television in the classroom as an integral part of the curriculum has already been mentioned. Through educational television there is a great opportunity in providing new kinds of services as well as more effective services within the schools and colleges and other educational agencies. It has been mentioned that the outstanding teacher in one school could provide inspiration to the students in many schools. The distinguished visitor could have an opportunity to talk to all the students in the educational system. Scientific experiments in one large, well-equipped laboratory could be presented to the students in schools lacking such laboratory facilities. Kinescopes of outstanding educational telecasts and films could be televised under certain circumstances to reach all students more conveniently and cheaply than if shown separately in individual schools. Admittedly there are problems of scheduling and timing in connection with the use of television in the schools and colleges, and it is to be expected that in school utilization will be adopted somewhat more slowly than in other areas where television has important uses.

2. Extraclassroom education for students.

Not to be forgotten are the school children and college youth

who form a part of the general audience when they have returned home after their classes are over for the day. A survey recently conducted by Xavier University in Cincinnati reached the startling conclusion that twelve- and thirteen-year-old children were watching television for an average of 30 hours a week as compared with the 25 hours they spent in the classroom. A commercial survey in Los Angeles indicated the average child in a home with television spent 22½ hours each week at the television set. The Zoo Parade, various hobby and museum shows, and so on point the way for the construction of out-of-school programs for children.

3. After-classroom education for adults.

Television is virtually "tailor made" for adult education. The different interests and needs of housewives, business men and women, doctors, lawyers, organized labor, farmers, and innumerable others can be met by well-conceived programs. Music, the drama, the art museums, the great variety of cultural and educational opportunities that this country possesses, can now be brought right into the living room. Education can be a lifetime process.²

²Carroll Newsom, A Television Policy for Education (Washington D. C., 1952), pp. 139-143.

CHAPTER III

A PARTIAL EVALUATION OF TELEVISION AS AN EDUCATIONAL MEDIUM

Educational television is a very good medium through which ideas may be presented in visual form as well as by spoken word. Much thought and time are required to present just a 30 minute educational program on television. This medium will probably never replace the classroom teacher, but it can be utilized to supplement and make clear the ideas presented in the classroom. As stated by Newson:

Two of the primary requirements for educational television are (1) that it "educate", and (2) that it make maximally effective use of the visual component of the television medium.

Good educational television sessions will bring about desired changes in the participating audience by increasing knowledge, modifying attitudes, spurring to action, and the like. But these objectives must be clearly defined in advance, and appropriate psycho-educational techniques must be utilized in planning and presenting the sessions. Unless the visual portions of the lessons conveys important meanings, images, or symbols over and above those conveyed by the audio portion, the television medium is not being properly exploited.

In order that the best use may be made of television in the educational process, it is necessary that men of imagination, resourcefulness, and persistence be encouraged to experiment with a variety of production procedures and that the outcomes of the television presentations be evaluated promptly and continually, to determine which procedures are most suitable for attaining each of the stated detailed objectives.

Since 1948 the Special Devices Center of the Office of Naval Research has been experimenting with instruction by television as a means of rapid mass training. In connection with this work the present writer headed a research project operating under contract between the Navy and Fordham University. As an independent and impartial agency, this research group was charged with responsibility for evaluating the effectiveness of three series of instructional television programs transmitted from the studio of the Special Devices Center.

Three one-semester courses were transmitted by microwave twice weekly, each session one hour in length, to groups of U. S. Merchant Marine Cadets. By means of pre-tests and post-tests, comparisons were made of the learning equivalent groups taught by typical classroom procedures or by television.

Outcomes of television instruction were also studied in the training of Naval Air reservists who received sixteen one-hour television sessions. Comparisons were made with the learning accomplished by equivalent groups instructed either by face-to-face procedures or by Kinescope recordings of the television sessions presented as sound movies.

The third project was concerned with the results of eight one-hour television sessions conveyed over a commercial network to more than three thousand Army Field Force reservists in 160 widely dispersed viewing groups.

The findings of these studies indicated clearly that television, when properly employed, is a potent tool for educating masses of individuals. In the following paragraphs some of the more important conclusions reached will be briefly summarized.

All groups of trainees showed important gains in knowledge after participation in even a single one-hour lesson presented by television. Not only were the television sessions as effective as traditional classroom instruction, but they were usually considerably more effective.

Trainees remembered what they learned during the television lessons. Repeated tests showed that more than 80 percent of the knowledge acquired was retained over an interval of one month.

Most of the men participating in the television training projects liked the television lessons better than either typical classroom instruction or training films. Nearly three-fourths of the reservists preferred television training to the usual classroom procedures, and more than 60 percent of them asserted the television sessions were more instructive than the average training films they had viewed in the preceding two years.

Kinescope recordings of the live television sessions, when presented as sound motion pictures were almost as effective as the television sessions themselves. This is particularly significant for mass training when it is remembered that Kinescope recordings are relatively inexpensive by-products of television presentations.

Available data indicate that some types of instructional presentations are very much more effective in promoting learning than other types. For example, it was found that dramatic presentations when unsupported by narrative or expository sequences were singularly ineffective in promoting learning. Some dramatic sequences actually confused trainees so seriously that they showed a significantly lower percentage of correct responses after such "instruction" than they showed before the lesson.

In addition to the above findings which are supported by test data, the following conclusions based upon systematic observation appear to have general significance.

The ideal instructor is the man who knows his subject thoroughly and is able to talk about what he knows in an easy and interesting manner. Such individuals are difficult to locate.

Except for their use in short dramatic interludes, professional actors have little to contribute to educational television sessions.

Several instructors participating in a single lesson seem to be much more interesting than a single instructor.

A rigid script with "blind" cues places an unreasonable burden upon the instructor and requires excessive rehearsal time. When the instructor is urged to speak spontaneously and to call for visual aids as they are required, the result is a relaxed and more interesting lesson.

The producer and the psycho-educational expert must operate as a team in planning and presenting the training sessions. No amount of "fixing" will turn a basically inadequate lesson into one which will teach.

Visual displays must first of all be clear to the viewers. They must also be comprehensible and pertinent to the matter being presented. Last but not least, the visual displays must be shown on the screen for a sufficiently long period so that they may be interpreted.

Communication from at least a sample of the audience to the instructor appears to be essential for two reasons. First, it permits the instructor to clear up promptly vague or confusing points. Secondly, it informs the instructor whether his presentation is being pitched at the proper level for the audience he is reaching.¹

¹Carroll Newson, A Television Policy for Education (Washington D. C., 1952), pp. 177-179.

CHAPTER IV

AN EVALUATION OF EDUCATIONAL TELEVISION IN OKLAHOMA FROM THE STUDENT'S POINT OF VIEW

In this study 198 questionnaires were sent to as many students at 31 schools throughout the state. The idea of the study was to get some indication of what students thought of their TV courses as compared to regular courses taught in a classroom.

The students taking the Educational Television Courses come from schools ranging in size from 50 to 800 students in high school, their ages run from 15 to 19, and there are 45 twelfth graders, 40 eleventh graders, and 3 tenth graders in various courses. Two of the students made no response as to their grade so this gives a total of 90 questionnaires returned out of 198 that were sent out. Of the students taking TV courses who returned questionnaires, 61 plan to attend college. There were 14 A students, 52 B students, 22 C students, and 2 D students taking the courses. Thirty-one of the students are taking their course as a college preparatory course, 10 took their course as a state requirement, and 49 listed other reasons. Some of these other reasons were curiosity, class choice, thought the course would be interesting, nothing else to do, and desire to improve general knowledge. Out of the 90 students who returned questionnaires, 71 were taking geology, 9 were taking physics, 5 were taking algebra, and 5 were taking geometry.

The following shows how the students responded to questions about their personal feeling toward the course: In response to the item, your interest in the course, 16 said their interest was above average, 54 said their interest was average, and 20 said their interest was below average. Eighteen students thought the overall quality of the lessons to be above average. Nineteen thought the lessons were above average as far as being geared to their ability was concerned while 47 thought they were average and 24 thought they were below average. Forty-one thought the presentation of visual materials above average, 40 average, and 9 below average. Thirty-eight considered the voice and diction of the instructor above average, 46 average, and 6 below average. Sixty-one rated the personal appearance of the instructor above average, 27 average, and 2 below average.

The next items will be presented in the text of this report just as they were presented to the students who filled in the questionnaires. It will show the number of responses to the items of different questions rather than break the responses down on a percentage basis. Some of the items do not total 90 because some of the students failed to respond to an item.

Please check one of the following from each group:

Is your viewing class supervised?

Yes	<u>58</u>
No	<u>17</u>
Sometimes	<u>15</u>

If your viewing class is not supervised is local help available for the television course if you need it?

Yes	<u>29</u>
No	<u>14</u>

If the class is not supervised, do you feel the need for a supervisor?

Yes	<u>13</u>
No	<u>25</u>

Do you have an opportunity to discuss the subject you are taking by TV with your supervisor or with other students who are taking the course?

Yes 83
No 6

Compare the interest value of the television instruction with that of regular classroom instruction.

TV has more interest value 18
TV has less interest value 35
TV has about the same interest value 37

In which method was there a greater challenge to individual achievement?

In TV course 32
In non-TV course 35
About the same 20

In comparison with other mathematics or science courses you have taken, how much time do you spend in studying for the TV course?

More time 6
Less time 49
About the same 38

Do you prepare the daily assignment for the TV course

More consistently than for a regular class 3
Less consistently than for a regular class 50
About the same 36

Do you feel that you cover more ground in a 30 minute TV class than in a 55 minute regular class?

Yes 30
No 22
About the same 19

What do you think of the significance of the content of your TV course?

Very important 31
Of some importance 46
Not important 3

What do you think of the quantity of material covered?

Too much 16
About right 70
Too little 4

What do you think of the clarification of the material by the teacher?

Adequate 75
Inadequate 15

Do you miss the personal contact with the instructor in the TV course?

Yes 33
No 25

How do you feel about the lack of opportunity to ask questions of the television instructor?

Disadvantage 69
No disadvantage 21

Does the size of your TV viewing class have anything to do with the amount you can learn?

Yes 51
No 38
Explain 1

Did your interest increase or decrease as your TV course progressed?

Increased 34
Decreased 47

Is the television reception consistently good at your school?

Good 43
Adequate 25
Inadequate 22

Does the quality of the television picture that you get affect your ability to learn in the TV course?

Yes 52
No 37

Is there enough resource material for the course available at your school?

Yes 40
No 48

Do you feel that you had an adequate background for this course before you started?

Yes 43
No 47

If a course were being offered by TV and also in a regular class which would you recommend to your friends?

TV course	<u>16</u>
Non-TV course	<u>51</u>
Makes no difference	<u>21</u>

The answers to the items on the questionnaire showed that most of the television classes were supervised and most of the students had local help available if the course was not supervised. Most of the students felt that a supervisor was not needed even though they had none. Most of the supervisors were teachers of Mathematics or Science, but some had diversified fields such as English, foreign languages, history, driver's education, and commerce. The biggest part of the group has a chance to discuss the subject they are taking by TV with a supervisor or some other member of the class.

TV instruction had about the same interest value as regular classroom courses. The challenge to greater achievement was greater in the non-TV course than it was in the TV course. Less time was taken in studying for the TV course and the daily assignment was prepared less consistently than it was in a regular classroom.

Students felt that they covered more ground in a TV course than in a non-TV course. The significance of the content of the TV course was considered of some importance by most students, however, thirty-one thought the significance of the content to be very important. The quantity of material covered was about right and clarification of the material by the instructor was good.

The students missed the personal contact with the instructor, felt the lack of opportunity to ask questions of the television instructor was a disadvantage, and they thought the size of the TV viewing class had

something to do with the amount that could be learned. A majority of the students said their interest in the TV course decreased as it progressed.

Most of the students considered television reception good at their school and most of them thought the quality of the television picture at their school affected their ability to learn in the TV course.

A majority of the students said they didn't have enough resource material available at their school, and a majority also thought they had an inadequate background before they entered the TV course in which they were enrolled.

Most of the students would suggest a non-TV course rather than a TV course to a friend.

Some of the better suggestions by students for improvement of the course are as follows:

1. More resource material pertaining to the subject be made available to the student.
2. A discussion period after class.
3. Some sort of grading system.
4. More daily assignments.
5. An outline of the course for each student at the beginning.
6. More detailed information should be furnished by the instructor on a specific subject.
7. Chemical formulas should be explained in more detail.
8. Each school be sent a list of reference material.
9. Reception could be improved with a more powerful transmitter.
10. Some students thought the class should be longer.
11. The most important points of discussion should be repeated more than once.

12. Tests should be clarified. Students do not understand some of the questions.
13. Extend the course the whole year rather than just one semester.
14. More relaxed attitude on the part of the instructor.

Questionnaire

Number of students in grades 9-12 _____ Grade _____ Age _____

Please answer all of the questions below:

Do you plan to go to college? Yes _____ No _____

Approximate letter grade average in mathematics in grades 9-12 _____

Approximate letter grade average in science in grades 9-12 _____

Approximate letter grade average in all subjects _____

Television course you are taking _____

Check reason for taking the course:

Interested in taking as college preparatory course _____

Interested in taking as state requirement _____

Others _____

The numbers to the right of any item may be considered to be a three-point scale as follows: 5 - above average; 4 - average; 3 - below average. Circle the one that you think most appropriate:

- | | | | |
|---|---|---|---|
| 1. Your interest in the course | 5 | 4 | 3 |
| 2. Estimate of the overall quality of the lessons | 5 | 4 | 3 |
| 3. Gearing of the lessons to your ability | 5 | 4 | 3 |
| 4. Presentation of visual materials | 5 | 4 | 3 |
| 5. Voice and diction of the instructor | 5 | 4 | 3 |
| 6. Personal appearance of the instructor | 5 | 4 | 3 |

Please check one of the following from each group:

Is your viewing class supervised?

Yes _____

No _____

Sometimes _____

If your viewing class is not supervised, is local help available for the television course if you need it?

Yes _____
No _____

If the class is not supervised, do you feel the need for a supervisor?

Yes _____
No _____

What subject or subjects does your supervisor teach? _____

Do you have an opportunity to discuss the subject you are taking by TV with your supervisor or with other students who are taking the course?

Yes _____
No _____

Compare the interest value of the television instruction with that of regular classroom instruction.

TV has more interest value _____
TV has less interest value _____
TV has about the same interest value _____

In which method was there a greater challenge to individual achievement?

In TV course _____
In non-TV course _____
About the same _____

In Comparison with other mathematics or science courses you have taken, how much time do you spend in studying for the TV course.

More time _____
Less time _____
About the same _____

Do you prepare the daily assignment for the TV course

More consistently than for a regular class _____
Less consistently than for a regular class _____
About the same _____

Do you feel that you cover more ground in a 30 minute TV class than in a 55 minute regular class.

Yes _____
No _____
About the same _____

What do you think of the significance of the content of your TV course?

Very important _____
 Of some importance _____
 Not important _____

What do you think of the quantity of material covered?

Too much _____
 About right _____
 Too little _____

What do you think of the clarification of the material by the teacher?

Adequate _____
 Inadequate _____

Do you miss the personal contact with the instructor in the TV course?

Yes _____
 No _____

How do you feel about the lack of opportunity to ask questions of the television instructor?

Disadvantage _____
 No disadvantage _____

Does the size of your TV viewing class have anything to do with the amount you can learn?

Yes _____
 No _____
 Explain _____

Did your interest increase or decrease as your TV course progressed?

Increased _____
 Decreased _____
 Explain _____

Is the television reception consistently good at your school?

Good _____
 Adequate _____
 Inadequate _____

Does the quality of the television picture that you get affect your ability to learn in the TV course?

Yes _____
 No _____

Is there enough resource material for the course available at your school?

Yes _____
No _____

Do you feel that you had an adequate background for this course before you started?

Yes _____
No _____

If a course were being offered by TV and also in a regular class which would you recommend to your friends?

TV course _____
Non-TV course _____
Makes no difference _____

What suggestions do you have for the improvement of this TV course if it is offered another year? _____

Please fill in a separate questionnaire for each TV course you are taking.

CHAPTER V

SUMMARY AND CONCLUSION

Summary. Television is the new prima donna of education. No one yet knows quite what to expect, but nearly everyone is expectant. Combining the realism of movies, the timeliness of radio, and the variety of all other audio-visual aids (it can use any one or all of them when needed) the educational potential of television is great. It can combine and multiply the skills of the greatest teachers, using materials from all parts of the world.

Conclusion. Certainly television, like any communication, will never develop far beyond what its audience wants. But it has a tremendous potential for education, probably far greater than anyone can now see. How successfully this potential can be tapped in the name of better schools is a question to be answered in the future.

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