A STUDY OF THE POTENTIAL EFFECTIVENESS OF ITV AT THE COLLEGE LEVEL IN COLOMBIA

Thesis for the Degree of M. A. MICHIGAN STATE UNIVERSITY GABRIEL ROBAYO VANOY 1972







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A Study of the Potential Effectiveness of ITV at the College Level in Colombia

ABSTRACT

In order to assist the university in solving problems of class distribution, the increasing number of students and faculty load the television medium was considered in the midle 1950's.

A review of studies of the ITV at college level in U.S.A. could help to plan an effective ITV operation at the same level in Colombia South America. It means that there are many colleges using the television medium for instruction and also many people have sought about its effectiveness from whom is possible to learn a lot about.

In the first part of this study and after some particular considerations is possible to recommend that ITV at college level in Colombia should be introduced into a well organized institution having in mind ITV quality for learning, this means that through a qualified production team, they have to pay attention to factors which are involved in learning by television, of course, this kind of operation should be for a long period to see the effectiveness. On the base of the Colombian's television system the distribution of ITV could be by transmitter, with the possibility to split the network, having a local channel in the biggest cities.

The present study included in its second part the administration, production, and direction of a ITV operation. The conclusion was that it is possible to take advantage of the experiences of the people working at college level in U.S.A. and on the other hand, to get the best from potential radio and television media in Colombia in combination with the people working for higher education in order to educate more people and to fill the country's needs.

A STUDY OF THE POTENTIAL EFFECTIVENESS OF ITV AT THE COLLEGE LEVEL

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IN COLOMBIA

By

GABRIEL ROBAYO VANOY

A THESIS

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Director of Thesis

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Finally, I would like to share the happiness of this moment with my family and the beautiful people who encouraged me to go ahead with this study.

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INTRODUCTION

All governments wish that "all men should be educated fully to full humanity; not only one individual nor a few, nor even many, but all men together and single, young, old, rich and poor" From "Pampaedia of John Comenius" written in the 1650's.

At the present time, and particularly in developing countries, there is a preocupation for getting an answer to educational problems and barriers. Such barriers are confronted by special obstacles: shortages of teachers, facilities and money; out-dated curriculum and instructional materials; low national income, strikes, colleges not working for five months, scattered population hard to reach, traditions and great inertias resistant to change.

Solutions to the educational problems had been sought, some of them being better than others. For instance, to motivate people to be new teachers, to build more schools, to increase salaries, to protest against curriculum. Some countries have adapted the radio and television media for instruction as part of the educational curriculum. Some of them with success.

1 Maynard Mack, "To See it Feelingly," American Council of Learned Societies, Vol. XXIII (October, 1971), p. 11. In the case of Colombia, Accion Cultural Popular has been working in primary education both in rural and urban zones using the radio medium with success since 1954. This kind of education is combined with textbooks and the newspaper "El Campesino" especially designed for this purpose.

The present educational program using the teleivision medium is the result of a contract between the Colombian government, the Peace Corps and AID designed to help the Colombians to establish a nation wide educational television system directed primarily to improve public education. It was hoped that later this system could also provide instruction for adults inside and outside schools, health, agriculture, dealing with topics of general interest, for student beyond the primary grades; high school and higher education. The contract is now working and Colombia has one of the world's largest instructional television programs for the 5 years of elementary school; in addition the Channel 11, INRAVISION, offers some 2 courses for adult education during the evening.

In the near future (taking advantage of the valuable experience in ITV of this country) it may be necessary to start using the TV medium as part of the high school and College, for instance using CCTV at Institutions and by transmitter to home students.

Accion Cultural Popular. Radio Sutatenza. Contract with ICA. Personal Information, 1969. Working for Radio Rural Programs "EL ICA INFORMA."

1

2 Educational Television-INRAVISION, Colombia, Bogota. Personal Information from Pilar Santamaria de Reyes, N.A. Director. March.1970.

The increasing number of students in Colombia requires more teachers, space, duplication of courses and an increase in cost. To solve in part these problems and in planning the use of the radio and the television media, the government should consider radio and television sets as primary tools for education. The electronic industry should participate actively increasing the number of radio and television sets made in the country and the casy way to get them so the number of buyers will increase as well the level of education for a better development of the country.

At the present time there are some examples of how the cooperation between public institutions and private capital has succeed. According to a 1967 survey, 717 out of 15,501 education institutions have been using CCTV in the U.S.A. In 1902, only 403 were using CCTV in higher education. At Nichigan State University one of the largest users of College CCTV, 21.6% of students' credit hours were totalled in 218 courses offered to freshman and sophomore classes. The Chicago TV College is a special model for the use of television for home students. However, people at this time believe that the television medium still has lots .3 of potential in education to produce the predicted results.

1

- Lawrence McKune, Compendium of Televised Education. Michigan State Unøversity, Continuing Education Vol. 15, 1968, p. 5.

2 Annual Report. Closed Circuit Television. Michigan State University. Instructional Media Center. 1970-71.

3

Personal interview with James Zigerelly, at Chicago TV College, Chicago, January 1972.

Governments should be aware of the educational problems and know what kind of people are preparing for the future. They should be interested in researching some new methods for teaching and at the same time, trying to get the highest effectiveness of education and at low cost.

The effectiveness of the ITV at college level will be study by the present research. It intends to review the basic factors about Introduction, Administration, Production and Evaluation of an ITV operation. Updated information will be researched by personal interviews and mail interviews to qualified people involved in ITV at college level. The consideration of these ideas should support an ITV operation at higher level in Colombia.

> "That there should one man die ignoraat who had the capacity to learn this I call a l tragedy."

> > Thomas Carlyle

Jerome Korabel, "Perspectives on Open Admissions", Educational Record (American Council on Education: Washington, Winter, 1972), p. 40.

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CHAPTER I

ITV GENERAL DEVELOPMENT

A. At College Level In U.S.A.

In 1950, NAEB and the United States Office of Education's Radio Office met educators from all over the country to discuss how they could use the television medium for their needs. This meeting was the official start of ETV (October 16, 1950) and during the same time it was named the Joint Council of Educational Television (J.C.E.T.).

To move ETV from theory to a program of action, 242 channels were reserved for education by the U.S. government. During a meeting at Pennsylvania State University the American Council on Education agreed to create a National Program Foundation to act as National and Regional Production and Distribution Center for Educational films and videorecordings. The foundation might be financed by investments from cooperating universities and foundation grants.

One of the first universities to engage in television training was the University of California which in February 1941 offered a short course in television production.¹

Beverly J. Taylor, "The Development of Instructional Television," The Farther Vision. ed. Allen E. Koenig and Ruane B. Hill (Madison: The University of Wisconsin Press, 1967), pp. 133-53. In order to introduce the television medium, in 1945, the General Assembly of the State of Iowa appropriated \$525,000 for the University of Iowa to build a communication center; later other universities did the same, such as Syracuse, Northwestern, Columbia, Western Reserve University, University of Michigan, University of Texas, Creighton Univerisity, Pennsylvania State University, New York University.

In 1952, the American Council on Education and Pennsylvania State University sponsored a national conference on <u>A Television Policy for</u> <u>Education</u>. This event has had considerable impact on and usefulness for the nation's development of educational television.

In 1954, the televisiom medium was introduced into the university as a means of obtaining more students and teaching them well. There were many experiments throught the country including those at Hagerstown, Miami University, Chicago and San Francisco.

The Fund for the Advancement of Education (FAE) and the Ford Foundation gave a grant for starting the use of television at college level at the Pennsylvania State University in 1954.

Taylor, The Farther Vision, 1967, pp.133-53.

L.P. Greenhill, H.D. Sherk and Betty McKenzie, The Role of Production in Televised Instruction. (Urbana:NAEB, 1959),p. 5.

The Pennsylvania State University was the pioneer in teaching college courses by television. In 1958, 14,000 students registered for one or more of the thirteen courses taught over CCTV on the campus.

In 1956, FAE appropriated a grant of \$500,000 to the Chicago Board of Education and WTTW, Chicago's local ETV station. The objective was to undertake a Television College. Curriculum for the Junior College of Chicago and for students living at home.

In the Midwest, Western Reserve University offered the first broadcast ETV College Credit Courses, Elementary Physicology and Comparative Literature, with a tuition of \$16 per credit hour for three-unit courses.

In 1957, the American Council on Education and Pennsylvania State University supported a seminar; the result of which was the publication of College Teaching by Television.

In using television at the college level this seminar pointed out that it would be important to demonstrate, develop and create distinctive and appropriate models for serving educational functions and cultural l objectives.

1

Greenhill, The Role of Production in Televised Instruction, 1959, p. 5.

CBS introduced in 1961 by network, "College of the Air," with crucies in Biology and American Economy. NBC's "Continental Classreen" begain the fall of 1958 with Physics and later Chemistry courses. More than 500 colleges and universities have participated in the courses offered by the 170 NBC stations. Today the commercial networks broadcast their one tolevision courses.¹

The biggest state wide ITV undertaking started in 1948 at the University of Texas. The Texas Educational Microwave Project, TEMP, this extensive CCTV and microwave educational system, officially began in 1961 as the nation's first television network of higher educational institutions. Courses are produced in the University's CCTV with a studio in Austin, college credit courses averaging ten dollars per credit. TEMP has operated independently with funds contributed by its member institutions.²

Today in 1972, there exists a great number of organizations whose main objective is to give a service or to help in the improvement of ITV, such as: The Federal Communications Commission (FCC), the Fund for the Advacement on Education, National Instructional Television (NIT), the National Association of Educational Broadcasters (NAEB), the Great Plains National Instructional Television Library.

TV Guide, April 14, 1972.

2

McKune, National Compendium of Televised Education. Vol. 15. 1953, p.643.

In 1963 there were more than 257 CCTV operations, 1,008 institutions were using ETV and 327 institutions were using commercial stations. Two hundred thirty two universities and nine hundred eight colleges used the television medium to teach 50 subjects.

The highest enrollments were: Science 99,053; Psychology 54,850; 1 Education 41, 952; Mathematics 39,884; Social Science 39,661.

B. In Other Countries

Besides the United States, other countries started instructional television as early as 1956.

In England in 1956 there was a television program about the French language. The television medium helped in increasing the viewers' .2 knowledge of French words. The analysis of the results were significant.

Ogawa in 1960 let 140 Japaneese fifth-grade children watch an educational television program about the Tokyo Yokohama industrial area. Comparison of pretest and post tet showed substantial increase in the 3 students'knowledge.

1
McKune, National Compendium of Televised Education. Vol.15 1968, p. 5.

2 Goodwin C. Chu and W. Schramm. Learning from Television: What the Research Says (Mashington: NAEB, 1968), p. 46.

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Ibid.

In It television illiteracy

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1 Says. 196

2 Ibio In Italy (1961) there were adults attending courses designed for television. Positive results were achieved by television in overcoming illiteracy.¹

In France in 1962 there was a closed-circuit television course for training teachers. This course produced good results and teachers improved their methods and learned to bring out the essential points of their lessons.²

Colombia's first attempts to utilize television for school purposes were in 1955. Started with the distribution of 500 television sets to schools in the Distrito Especial de Bogota and the Departamento de Cundinamarca, around the capital. This project survived for one year.

In 1960 the Radio Televisora Nacional de Colombia created the Teleeducation Department which has to prepare a program of instruction for day time presentation over the national network.

1 Goodwin and Schramm. Learning From Television: What the Research Says. 1968, p.46.

2 Ibid.

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l Jack Program fo <u>in Action</u>.

2 Area 3 Ly)*q* 1967, p. 4

4 Pet: Television

One hundred schools started in some cities of the country using television for teaching primary grade, 1963, and this was considered a pilot program. In 1969, more than 500,000 children were taught by television used as part of the primary level.²

Besides the daily programming the Colombian education television is clearly involved in service training to improve teachers although it does not claim this to be its principal function or responsibility.

The general teacher's guide is to be used fo training in-service teachers, students and the faculty of the teacher training colleges. In 1969, Colombia was choosen for a teachers training program for $\frac{4}{4}$ Spanish speaking countries.

Jack Lyle, C.L. Germanacos and J. Torfs, "Colombia's National Program for Primary Level Television Instruction," <u>New Educational Media</u> in Action. No. 2 (Unesco:IIEP, 1967), p. 49.

2 Area Handbook for Colombia, 1970, p. 136.

1

3 Lyle, Germanacos and Torfs. <u>New Educational Media in Action</u>. No.2 1967, p. 49.

Peter Coombes. "INRAVISION Teacher Television Training," Educational Television International. October 1971, p. 35.

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Instructional television was expanded in 1962-65 on the base of testing the efficiency of television at the primary level in comparison to face-to-face. After a financial crisis and also indecision about what ministry should take the program, the Colombian government presented a proposal of an ambitious program to the government of the United States in order to revive the program and request financial and personal assistance from AID and the Peace Corps. A proposal was also made to the Ford Foundation for certain assistance.

Colombia actually has one of the world's large instructional television programs for the first 5 years of elementary schooling. This program reaches on a daily basis 575,000 people in over 800 schools. The produce forty lessons per week, plus three teacher orientation programs.

Programming for the one service originates in Bogota and is relayed over a network of repeaters which provides coverage to the majority of the population.

There are 15 television stations equipped with transmitters in different areas. In 1965, 745 hours of transmission time was used for educational television. Over 130 people were directly involved in the preparation, production and utilization of the educational programs.

Lyle, Germanacos and Torfs. <u>New Educational Media in Action</u>. No.2 1967, p.49.



The present Peace Corps project director feels that the present group of volunteers should be the last and when they leave the program it will be in the hands of the Colombian people.

Educational television has exclusive use of one INRAVISION studio, 39 x 21 feet. It has a bank of pre-set lights controlled from a master panel, two RCA image orthicon cameras (one with a zoom lens) on wheeled dollies and a studio monitor set. Neck microphones are generally used although sometimes the boom mike is used.

The studio's control room is equipped with cameras videotape, telecines, preview and transmitted pictures. The audio control panel is equipped with a recording turntable and a tape recorder. Two telecines, housed in master control are available providing for the projection of 16 nm film and 35 mm slides.

There is a Bell and Howell 16 mm projector in the studio control program, used for previewing films. One videotape recorder is housed in a separate air conditioned room adjacent to the master control. This l plus television sets were acquired through a grant from U.S. AID.

Lyle, Germanacos and Torfs. New Educational Media in Action. No.2 1967, p.71.

C. Applying Learning Theory to ITV.

In trying to learn from television it is convenient to know the role of each one of the fundamental learning factors:

 Motivation.- The introduction of cues which arouse motivation toward the achievement of an educational objective will increase the effectiveness with which that objective is achieved.
 This is supported by Allison and Ash in 1951 cited by Chu and Schramm.

For instance, the assistant teacher in the classroom television should introduce the teleclass with a short discussion.

2. Potential of the Teleclass. - Its use of "How to do something", demonstration in applying a method to the solution of problems will increase the probability of

learning.

For instance, to follow a step by step demonstration about a heart operation.

1

Goodwin and Schramm. Learning from Television:What the Research Says (Washington: NAEB, 1968), p. 46.

2 Neal E. Miller, "Graphic Communication and the Oris in Education Audio Visual Communication Review, (December, 1957), 5 pp. 3. <u>Individual Differences</u> -- Since learners differ in their capacity to make the response to be acquired, learning will be most efficient if it is planned for each learner to embark 1 on a program commensurate with his capacity to achieve new responses.
This possibility may direct the attention to selecting students by interest and age for ITV.

4. Learning by Imitation and Observation .- Some people are capable of learning by repeating, 2

and practicing skills seeing or watching other people performing.

From this point of view it will be possible to study and to select students to be taught by television. For instance, to teach subjects by television which students should participate in classroom. Make tests to students pre and post and select students who finally completed the work done on television.

Miller, et al <u>Graphic Communication and the Crisis in Education</u>, 1957.

2 Ibid. 5. Learner-Responding.- If the student finds his own response, he will learn the subject better than if he does .1 it by observing others responding.

For instance, to encourage students to respond to telecasts frequently and to participate actively in problem solving every week.

6. <u>Speed Learning</u>.- There are some students who can learn faster than others and some of them may spend less time to get their college degree. Selection of the students by this characteristic will reduce notably the cost, but students can make their progress faster and also in countries where education is paid by parents it will be less money spending.

From these factors we deduce that some motivations are common to our entire culture, but it is not natural that all people's interests are 2 similar. The differences are greater than most of us realize. Therefore, whenever an educational program is planned we also must ask what are the students' interest.

1

Miller et al Graphic Communication and the Crisis in Education, 1957.

2 Commission on Instructional Technology. To Improve Learning, (Washington: U.S. Government Printing Office) March 1970.

At the present time when the lack of educational elements seems to dominate, the students are highly selected and motivated and their own responsibility increased.

In the future some of the highly motivated and selected students could go to college; the education of the remaining students could be solved by having them study at home; the learning factors represent a special l role in these situations.

John I. Goodland, Dean of the Graduate School of Education at U.C.L.A. pointed out "the impact of mass media on the student such as 15,000 hours of television in addition to many hundreds of hours of public movies, and also exposure to newspapers, magazines, radio and only 12,000 hours 2 in school is an antidote."

College students are highly motivated, but we should distinguish between being motivated to <u>watch-amusement</u> and being motivated to watch learning.

Miller et al Graphic Communication and the Crisis in Education, 1957.

1

2

Richard Burke, Instructional Television. (Bloomington: Indiana University Press, 1971), p.133.

Father John Culkin, communication expert of Fordham University, said: "the new learner calls for a new kind of learning..." Should we adapt the process of learning to accommodate the child and young people who have been exposed to the impact of sound and image, and who should use all of his senses in his learning as an active agent in the process of discovery?"

Lately, researchers are working on how to measure the impact of films of violence shown on television on children using electronic equipment connected to each one of their senses and measuring it by a physiograph.

D. Acceptance of the Television Medium in the Educational System

The adoption of instructional television into an educational system should be planned. Advocacy and enthusiasm are not sufficient guarantees 3 of success.

Burke, Instructional Television, 1971, p. 133.

Britain Book of the Year, 1971, p. 733.

3

Judith Murphy and Ronald Gross, Learning by Television (New York: Fund for the Advancement of Education, 1966), p. 6.

People believe that instructional television's limited influence in adoption could be largely explained by a deficiency in quality. What it means is that the production values were weak. For instance "in the 60's the camera work was poorly conceived, the videotape was unsatisfactory, lighting, design, graphics poorly executed."

"The content was out of date and poorly structured or uninteresting, the teacher might have been dull, disorganized and might have failed in stimulating the learner. Is this a Tv problem or an instructional problem? or both?. As a consequence it is not an effective instruction. However, in 1967 there were 717 CCTV operation in comparison to 403 in 3 1962. Also in some countries where the television medium had been started it has now been adopted as a part of the education curriculum. For Instance:

Colombia, Hagerstown, Nigeria, Samoa, MPATI. - Upgrading Instruction Algeria, Colombia, Hagerstown. - Teaching Teachers U.S.A., (Chicago), Italy, Japan, Peru. - Extending the School.

Murphy and Gross. Learning by Television, 1966, p. 6.

2 Ibid.

3

Commission on Instructional Technology. <u>To Improve Learning</u>, 1970, p. 69.

Goodwin and Schramm. Learning from Televised Instruction, 1968. p.16.

E. Potential Financing

1

The Corporation for Public Broadcasting was created by the U.S. Congress in the Public Broadcasting Act of 1967, which says that the entire country should have the benefits of a strong public broadcasting system. This coporation would bear half of the public braodcasting operating costs, which are estimated to be close to 180 million dollars between 1972 and 1980. The remaining half would be financed by the Department of Health, Education and Welfare (H.E.W.). The H.E.W. intends to be associated with increasing contributions from others. The main objective will 1 be always to plan the increase of contributions.

Colombia needs and should find a way to raise funds in order to improve education beyond the primary level and to be able to build a project for higher education based on the successful primary level television instruction to continue using the television medium as part of the educational curriculum.

Official institutions such as the Education, Communications, Health and Agricultures Ministries, and other national and foreign institutions should take part in the project, since all are involved in the National Development.

Lyle, New Educational Media in Action. No. 2, 1967, p. 74.

Among the private MANUFACTURERS THAT COULD COOPERATE IN Colombia are manufacturing companies such as General Electric, Phillips, Motorola, among the private mass media we have the National Association of Colombian Broadcasters. newspapers <u>El Tiempo</u> and <u>El Espectador</u>.

With the cooperation of all the above institutions and manufacturers it would be possible to create a corporation in charge of the funds received and directed to increase them and to provide a better and faster education via mass media.

If the Colombian people consider that the television set is an important tool for its education it will be essential to amend the law that actually restricts the importation of television receivers, parts, videotapes and other related supplies.

Lyle, New Educational Media in Action, No. 2, 1967. p.74.

CHAPTER II

GENERAL APPROACH FOR ITV

A. Introduction of ITV

1

There are some suggestions for introducing ITV in a College or Institution of which we need to be aware:

 To study people's reaction.- It is important to be aware that people are against any change, this makes the first step difficult.

2. <u>To motivate the entire staff</u>.- To initiate WORKING TELEVISION practice is more convincing than

theory. Ten minutes involvement before the camera and watching the play back is better than persuading for a month in order to get the idea across.

3. <u>To invite teachers to start</u>.- To suggest that everyone try to experiment with different approaches,

methods and materials. They should try at this time to know how to teach l by television.

Richard B. Lewis, "Norturing Campus-Wide Exploration of CCTV Teaching." in The Role of Production in Televised Instruction, ed. by L.P. Greenhill, H.D. Sherk and Betty Eckenzie (Urbana:NAEB, 1959), p. 15.
- 4. To Prevote more Interest, more Rehearsal and Select ITV Objectives The administrator should be ready to answer any questions regarding the use of television for instruction.
- 5. <u>To salect the best Personnel</u>.- An essential key would be used to eliminate incompetent teachers

and with the remaining create enthusiasm of the effective use of the television medium. Perhaps the unqualified teachers for performing on 1 television could help in the classroom.

To create a spirit of "We are all in the same stage of development" is a good strategy.2

6. To develop Cooperation. - To succeed in a cooperative program it is essential to build good teams. If one is on camera others work by observing students; the next step is to have them change ideas and places. ITV improves when several teachers help each 3 other and the television personnel help them all.

l Clifford Erickson, Hymen M. Chauson and James Zigerell. <u>Eight</u> Years of TV College. A Fourth Report (Chicago: Public Schools, 1964,) p.12.

2 Richard Lewis, The Role of Production in Televised Instruction, 1959 p.15.

3 Ibid. 7. To Compromise the Administration of the College.

There are some considerations to involve these people:

 a. TV registration courses, schedule cooperation sending information to faculty about ITV.

1

- b. Instructional Television Information and Promotion.
 Office hours and special meetings with the television teacher.
- c. Television workshops and short telecasts for visiting groups.
- d. Allow the involvement of administrative personnel directly
 and put them "on the air." "The producer director won't try
 to be an administrator or a teacher. He should do his work and
 he will be supported by television in the institution by proud
 2
 satisfied teachers."

B. Using CCTV.

"Can you teach regular college and university courses by CCTV for full semester?" Mr. Alvin C. Enrich of the Fund for the Advancement of Education asked toPennsylvania State University in 1954. They answered, "Yes, for the three courses we have televised..." but "instructional television should not be a routine."

Lewis, Televised Instruction, p.15. 1959.

2

3

Ibid.

To avoid routine means that ITV should be improved; the potential of television will be used at maximum and at the same time the limitations will be reduced. In effect, in the study of Schramm in 1962 it was found that from 202 comparisons at college level, 22 were more effective by television, 20 were more effective face-to-face and 152 did not present significant differences. According to Mielke, to measure ITV effectiveness includes specific factors, which perhaps were not taken into consideration.

1. <u>The Administrator</u>.- The CCTV should have an administrator to handle financial matters, and coordinate

with school addinistrators and teachers such things as program selection, schedule, course development and many other details which occur in any kind of educational administration. He must be able to prevent shortcomings, estimate and communicate ideas and analyze their consequences. Besides these factors should be able to work under pressure.

In the small CCTV system the administrator may be manager, program supervisor, writer and director and perhaps he will have an engineer to 3 supervise technical operations.

1 C.R. Carpenter and L.P. Greenhill, Closed Circuit Television for Teaching Universities Courses (University Park, Pennsylvania, 1958)

2 Keith Hielke, "Evaluation of Learning from Televised Instruction," Instructional Television, ed. by Richard C. Burke (Bloomington:Indiana Univ. Press, 1971), p.97.

3 Dana E. Cox, "The Television Administrators," In Instructional Television, ed. by Richard Burke (Bloemington: Indiana University Press, 1971), p. 86.

The administrator should demonstrate a qualified personality and be experienced in order to do all his work. The CCTV Administrator has to work with the community and be on good relations with the leaders to make the programming reflect the meeds and interests of all the people within the area of the broadcast signal. As a consequence, the administrator should also be aware of the effects of national and international problems 1 on his community.

The administrator's background should help him apply learning theory to instructional television. He should realize the role of education and he should be aware of the school system and television's effects in his school.

The Economic-Committee and Curriculum of the college in colaboration with the administrator should find a competent studio teacher in the subject area to develop the course content and curriculum materials according to the instructions of the committee. The decision is a very important fact and the administrator should be acquainted with it in order to judge prospective TV teachers. This decision should be on:

a. How well they will meet the receiving students' needs.

- b. Temperament.
- c. Communication abilities
- d. Disposition
- e. Capabilities

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Cox, Instructional Television, 1971, p.89

2. <u>How to Decide to Use CCTV</u>.- After a long process in which administrators, teachers, professionals in radio, TV and other people try to convince others of the importance of 2 CCTV, it will be necessary to follow a sequence:

- a. Get a man who is interested in CCTV and qualified in TV in order
 to take the responsibility of planning and organizing.
- b. Get a researcher to help in surveys with members of the committee, leaders, members of the faculty, students, parents, industry and to determine the needs of the school system.
- c. According to the actual planning and production, present ideas and points of view on instructional television at teachers' meeting. Be ready to answer the following questions:

Cox, Instructional Television, 1971, p.89.

George Bibich, "The School Administrator Role," <u>Instructional</u> <u>Television</u>, ed. by Richard Burke (Bloomington: Indiana University Press, 1971), p.39.

cost and manner in which the project will be paid for and what the accomplishments and difficulties be.

- d. While the committee is studying equipment and installation costs, get a consultant engineer for objective appraisal and suggestions.
- e. The estimated cost should be within its range in order to get a positive response from the Trustee.
- f. Get the necessary capital to buy and install equipment. Each school system must decide for itself what kind of equipment it will need.
- g. Don't be disappointed with the performance of your equipment.
 Cut costs without cutting quality, use imagination and a good purchasing department.

This project may be desirable to be considered as a king of model which may be modified and adapted by other educational institutions.¹

1 Bibich, <u>Instructional Television</u>, 1971, p. 42.

3. <u>The Producer-Director of CCTV</u>. - When choosing the producer-director, the administrator should have in mind that he has to be a compatible person and able to complement the

teacher in the best indepest of the instructional aspects of the CCTV operation.

The producer-director should demonstrate certain especial abilities important for the TV course:

- a. Leadership capability to help build confidence.
- b. Strong purpose in helping the TV teacher and thus strengthen the televised lesson.

Although the administrator is not present when a given lesson is transmitted from the studio to the classroom his effectiveness in choosing personnel is measured as a positive or negative reaction in the eyes of the l receiving classroom teacher and students.

"It is very difficult for a director who has not previously worked with a particular camera crew to handle his cameras well on an unrehearsal show. It is important to note that, in the team-work between camera crew and the director, it is just as often the cameraman who contributes to the creative effort and gets the good shot at the right time."2

Cox, Instructional Television, p. 89.

2

Edward Stasheff and Rudy Bretz, The Television Program: Its Direction and Production (New York: Hill and Mang, 1968), p.210. Therefore, it is essential to train the cameramen for improving the quality of instructional television with the rest of the crew who are going to produce the same telecourse.

4. Cameramen .- The next step is to select the people who are going to operate the cameras. In general this kind of equipment is operated by students who demonstrate an interest in learning something about television. But after a long period of training they should take over the complete operation. There is not much that one can do about the selection of the student cameramen since until now there are not method for this selection in relation to instructional television. In general cameramen should be aware of:

- a. Paying attention to balance (performers acting or talking in relation to size, color and contrast).
- b. Preventing bad composition or poor framing (headroom, performer is cut off at the ankles; performer's hand just below the frame), focus or contrast, glare.

1

Bibich, Instructional Television, 1971, p. 43.

2

Colby Lewis, TV Director/Producer (New York: Hastings House Publishers, 1968), p. 80.

- c. Camera handling techniques (prevent shooting off the set). Close Communication between the TV teacher and the cameraman in order to know what part of the subject he should show.
- d. Importance of rehearsal to every TV lecture and to review every taping to improve for the next time.
- C. Basic Research on Starting of a CCTV Operation

The use of CCTV should be defined by four general areas of research: 1) effectiveness, 2) appropriateness, 3) acceptability and 4) feasibility. This research is basic to start a CCTV operation because the people's reaction and student's interest are different from place to place.

- 1. <u>Effectiveness</u>.- Studies of comparative effectiveness of face-toface and televised instruction with the TV 1 medium as the only independent variable, require at least:
 - a. The same teacher;
 - b. The same time;

- c. Covering the same subject;
- d. To teach at least two groups who have been randomly selected:
 - Control group which is taught face-to-face by the same teacher.
 - 2. Experimental group which is taught by TV.

2. Appropriateness.- Those courses for which televised presentation is appropriate may require modification and

adaptation for television. Should courses be adapted for TV presentation? This may be necessary, but it is not the sole reason for course adaptation.

It is the most difficult task to decide what adaptations, thinking always that the adaptation should have creativity and be proposed, justified and supported in terms of improvement of the courses as one part of the academic and personal development of students, also in terms o motivating students to go and discover more about the subject.

3. Acceptability.- It depends on how people react to the TV medium at the school. In this are there are many people responsible for the failure of CCTV. For instance, the Board of Trustees, Administrative Officers, Procedures, Committees and Senates or councils. The reactions of the students and minority groups of faculty members are the most common.

There is another question to answer: how long the acceptance willl continue? It is important to determine the amount of support or resistance to this tool of education, and also to determine the changes in attitudes which occur with the time.

1

Carpenter, Circuit Television for Teaching Universities Courses , 1959, p.

4. Feasibility.- There are some factors which should be weighted with the results presented as part of the overall justification of CCTV employed for presenting good or better instruction 1 to a large number of students.

- a. Initial and operational costs.
- b. Dependability of equipment.
- c. Cost and difficulty of engineering maintenance.
- d. Staffing of systems and management of large classes.
- e. Number of classes, the size of the class and space requirements.

D. The Quality of Televised Instruction.

The meaning of a deficiency in quality of ITV is that the "production values in a particular program are weak. Camera work is poorly conceived, videotape quality is unsatisfactory or lightening, design of graphics poorly executed.²

"More often, however, it means that a program is unsuitable because it is not very effective as instruction, the content may be out of date, poorly structured or uninteresting, the teacher may be dull, uninformed or disorganized and fail to stimulate the learner."³

Cox, Instructional Television, 1971, p.95.

2

Burke, "Questions About Instructional Television, " 1971, p. 117

In summary Mr. Burke comments that the failure in a signle value or in a combination of factors may cause a program to be classified as deficient in quality. In order to evaluate the quality of the televised instruction it is important to distinguish between factors inherent to the TV medium and factors inherent of the production per se.

These considerations show the responsibility that everyone working in the team would do it for the quality of instructional televised instruction.

"The best approach to the quality in ITV is a team approach which is neither teacher oriented nor media oriented, but learner oriented."

The team should not work thinking about traditional orientation courses, but researching with television medium to design learning experiences so that the teams is going to develop interests to reinforce the message from television and at the same time to learn.

Some time ago people developed TV courses without planning objectives and goals or thinking about the after effects on the students. They thought about what to put on the screen but not what effect was intended on the 2 student,

Burke ,"Questions About ITV", 1971, p. 118.

1

2 NAEB, Toward a Significant Difference. Final Report National Project for the Improvement of Televised Instruction, 1965-1968, p.11

Instructional television production should be done to avoid difficult explanations, to learn by watching, to introduce information and avoid boring teleclasses.

It is important to think about and to plan for the future on the basis of the information of the Project Advisors from the National Seminar "Toward a Significant Difference" : 1

- "Deficiencies in ITV programming deal with the poor understanding of learner reaction."
- 2. "Deficiencies in the classroom use of television deal with the fact that student response also depends on stimuli beyond the organization and presentation of the teleclass."

According to the Project Advisors from the National Seminar, this kind of misunderstanding has many causes:

a. " Most producers, directors graphists and television teachers had been trained to manipulate television as a mass communication device primarily suited to pass along information."

NAEB, "Toward a Significant Difference," Final Report, 1968, p.12

 b. "They had little knowledge of the never concepts of organizing and sequencing instructional presentations for effective individual learning."

From these points of view the people who participate in the Instructional Television production team, as the people who should help students after or before the teleclass "have to be trained to handle the medium as an integrated part of a larger and objectively designed system." Also the Seminar agreed on special plan for the future "we must force ourselves to view educational problems and solution on the learner, rather than on the teacher and administrator. In order to improve ITV's quality it is necessary to have feed-back."

E. Who and What Should Improve Instruction by TV?

1. <u>Institutions</u>.- Let me introduce this approach by quoting some applicable questions to our problem; these are from Mr. Richard Burke: "The questions are not how and where do we fit television into the course of study, but rather, we should be asking how will the learner achieve maximum learning, what resources are available, how should the learner be directed to various learning opportunities; what about stimulation and how shall the desired objectives be measured?"

NAEB, Toward a Significant Difference," Final Report, 1968, p.12.
 Burke, Instructional Television, 1971, p.119.

The Carnegie Commission has made two recommendations dealing directly with Instructional Television. One of them recommended a substantial program of research and development in ITV, designed to discover within the full context of education, the key in which television can best serve l education.

The National Center for school and College Television was changed by NIT (National Instructional Television). According to Mr. Edwin G. Cohen, NIT besides its functions as national distribution center has assumed the role of program design and development. "The production patterns are: To include: the nation's most knowledgeable educators, careful identification of the goals, identification of an effective television teacher, experimental development of the presentation format, testing and selecting the most promising format." 2

Besides the NIT is undertaking perfection of a chosen format for pilot production and testing of lessons; tentative production and testing of additional lessons; revisions and further testing of production broadcasts; 3 classroom feedback, revision and general feed back.

1 Carnegie Commission, Public Television, 1967, p. 2 Edwin G. Cohen, NCST News, Vol. 2 No. 1, 1967. 3 Ibid.

This kind of production is done on the basis of cooperative production funds. The idea is to eliminate the duplication of programs and to improve the quality.

The other source of 1TV programs for higher education is Great Plains National Instructional Television Library at the University of Nebraska. At the present time they offer films about utilization, production techniques by CETO, oriented to improve the quality of televised instruction. "The Studio Teacher" emphasizes application in the training of new on camera teachers or in informing classroom teachers of the preparation and processes necessary to produce a televised lesson.

"TV in the Classroom" emphasizes the value of preparation for the telecast-preparation of the teacher through study based on the course teacher's guides, and preparation of the students in order that they will have proper orientation and vocabulary background to benefit from the television lesson-and of follow-up after the telecast to reinroce the concepts presented by the television teacher . It also stresses the "team" relationship between classroom teacher and studio teacher.

"Television Techniques"for Teachers" available in English and Spanish languages sound track, 16 mm., recognizes difficulties associated with the introduction of instructional television into the classrooms and attempts to provide some practical answers that might

Catalog of Recorded Instruction. G. P. N. I.T. Library (Lincoln: University of Nebraska, 1972), p. 144.

be implemented in any classroom anywhere in the county. And although the presentation is highly informative it is not pedantic in its measure. The approach is light and entertaining.

From CETO: "Still Pictures in ETV". This shows some criteria for a good still picture, taking into account shape, composition and gray scale. The use of superimposition of arrows, circles and words is demonstrated, as well as camera movement over a 'photo blow-up' and some fast methods of changing captions. A series of photographs taken on successive days illustrates 'compresed time' while a historical reconstruction is demonstrated by a series of drawings. Choosing between photographs and drawings is discussed. A final example combined good photography, music and camerawork in an artistic whole (approx. 27 minutes.)1

"Communications & Education" has acknowledged value as an in-service teacher education series or as a general adult viewing experience. From the New York State Educational Department.2

"Physical Science" produced by Chicago's TV College at WTTW deals with the non-living of the universe. It is primarily intended for those who do not need detailed knowledge of science or laboratory techniques, but do need an understanding of some of the more important scientific principles, and even more important, an appreciation of the scientific

Catalog of Recorded Instruction, 1972, p. 156 2 Ibid, p. 164. attitude and method.

"Public Health Science". The purpose of this series is to provide high-quality instruction in public health science, including specialized teaching resources, for the baccalaureate nursing program. Produced by 1 Texas Woman's University at KUTH-TV, Houston, Texas. With a few exceptions of failing foundations have played a constructive role in the progress of education in U.S.A. Their philosophy is to support Commissions, special studies, designed to look at the field of higher education. After evaluation of present practices to make recommendations for the future. The Ford Foundation in February 1971 gave a new grant of more than 9 million to the Educational Broadcasting Corporation for national and local programming throught 1972.2

2. The Production Personnel.- The production personnel engaged in ITV have to develop a particular role and be qualified with special characteristics. The role of the production personnel can be described as that of "friendly critic and an 3 interested assistant."

Catalog of Recorded Instruction, 1972 p. 178.

F.E. Andrews, Foundation Influence on Education. Educational Record Washington: American Council on Education, Winter, 1972, p. 29.

3 Rudy Bretz, "Some Basic Production Principles and their Relation to Learning," The Role of Production in Televised Instruction, NAEB Seminar, 1959, p. 9.

"The good teacher working in cooperation with the producer will become the most advisable production team. The teacher;s qualities should be put together with the producer's which are an imagination and initiative of a very high order and an organized mind directed to produce the most effective communication. But the TV director is an essential person in the production if we think about improvement in ITV. The director must have time to dedicate all his energies to the creative and artistic problem or making the production as good and clear as possible so the audience can see and understand and learn."

The task of the producer and the assistand production personnel:

a. The producer should closely observe the TV teacher's attitude, style and presentation in a normal classroom setting as well as before cameras. This observation is directed to improve the teacher's 2 performance.

Edward Stasheff and Rudy Bretz, The Television Program its Production and Direction (New York: Hill and Wang, 1968), p. 163.

1

2 Jarvis Boyer, "Roles and Responsibilities of Production Personnel," "The Role of Production in Televised Instruction ed by L.P. Greenhill, H.D. Sherk and Betty McKenzie (Urbana: NAEB Seminar, 1959), p.13. b. He should suggest appropriate methods by which the TV teacher might communicate effectively, this means that the teacher must be aware of the medium's limitations.

c. The production personnel should not be bothered so they will be able to recognize and promote good teaching. Encourage instead of discourage teachers.

d. They always should remember that the main and permanent objective is to help the teacher to do an effective job of teaching and to avoid changing the teacher's task by the use of the TV medium.

e. At all times production and TV personnel should try to improve the process of teaching by TV. For instance, discussing with the TV teacher the value of the visual aids in relation to what the students could get from them.

The director is more involved than any one else in the composition of the picture on the screen and it is not the concern of the cameraman alone. He must select the portion of the scene which shows the subject to its 2 best advantage. Could a television director select the best message for students if he does not understand the content of the lecture.?

Boyer, The Role of Production in Televised Instruction, 1959, p. 13

1

2

Stasheff and Bretz, Television Program Production Televised Instruction 1968, p. 98. In commercial television, becides the cameraman and director there are other people that contribute to a good composition of picture; it could be the same situation for instructional television. Such people are choreographer, a scene designer. These people permit the director and cameraman to frame more interesting shots.

"Goog Composition is possible by the correct handling of the camera, proper choice of field of view; appropriated camera angle, lenses, focus, and frame; the arrangements of the various elements of the subject or scene: creating shape and form of things; considering light and dark tones; giving special attention to the lights which separate areas. This is a work that only the graphic artist can do. The television director or the cameramen are not able to analyze the design elements for better pictures, but they must select the best in composition.

Improving the composition of the picture by the director requires: "he will do this not according to rules but according to his own feels" and coordination with his gained experience working with other directors or with 2 scenic designers , with cameramen gifted with a fine pictorial sense."

1

Stasheff and Bretz, Television Program Direction and Production, 1968, p. 98.

2 Ibid.

The most important principles and concepts about pictorial composition must be so truly understood and assimilated by the director and cameramen.

3. Communication Model to Teach by TV.- The ITV production personnel should regard the Lass-Well Model as a good and as an effective collaborator with the teacher using TV to communicate to his students 1 and to increase the highest interest in learning.

According to Harold Lasswell, cited by Mielke, the model of teaching by television is:

Who (The TV teacher);

Says What (content pf the instruction);

Through which channel (TV medium);

To Whom (students);

With what effect (it is not the medium factors alone, but it must try to account for all of those factors that are highly related to learning.)

When following the Lass-Well model the contribution of having in mind each of these steps is relevant to learning effects. But an additional step to this model should be :

How (By reinforcement of the message by television). Also after each step in this model is necessary the respective evaluation.

Mielke, "Evaluation of Learning," 1971, p. 102.

2

"Both the producer and the teacher's passion for effective communication should supplement each other. Therefore, TV production must originate on the producers's knowledge of the technical requirements of production and the limitation of the mediun and the message must originate on the teacher's knowledge of the communication process."

The producer must decide early in the rehearsal what action he intends to take and how to avoid the lack of confidence from the teacher ; he must be creative and sensitive and in addition, with some teaching abilities; he should try to understand the subject content as such as possible. The degree of creativity will almost certainly be in direct proportion to his $\frac{2}{2}$ degree of understanding.

Compatibility of temperaments is very important in order to succeed in the teacher-producer team. Before starting and while he is in the controlroom & studio producer should explain everything clearly, for instance, why certain cues are necessary, why roll cues are important why graphics must be thus and so on. After the explanation the 3 instructor will accept the suggestions more readily.

1 Mielke, "Evaluation of Learning", 1971, p. 104.

2 McNabb E.M. "The Producer as a Psychologist," in the Role of Production in Televised Instruction (Urbana: NEAB, 1959), p.29.

3

Ibid.

Directly after the telecast do not mention lapses, faults and mistake made by the instructor. During the rehearsal it would be better to stop the videotage and start again. "Never undermine the instructor's morale by comparing him with other instructors." "Be generous with honest praise Take time to be specific."

The producer should respect the course content and demonstrate interest as though it were his favorite subject. He should give acceptance of the method of teaching and its sequence to improve the effectiveness in the use of the medium for teaching one of his permanent goals.

There are some standards of production in order to use TV as an 2 effective medium of communication:

- a. Visibility of subject from a normal distance.
- b. Audibility of subject from the convenient position.
- c. An estherically pleasing presentation without extravagancies.
- d. Students at the classroom should feel involved watching the telecast.
- e. To improve learning the instructional production should never be distracted.

R. Bretz, "Some Basic Principles and their Relation to Learning." Urbana: NAEB, 1959, p. 9.

l Ibid, p. 30.

²

Therefore, the model of effective communication from the message to the viewer is closed. However, TV should not be looked upon as an end in itself and it is not a substitute for face-to-face situations.

Nr. Bretz defined production as "The interaction between the content and technique". He said "Content must filter through technique to the audience" and in order to produce effects on the audience telecourses should be well planned, organized, produced and well followed by feedback and audience participation.

He made this comparison: "Image and elaborate production techniques like sugar coating on a pill are all right as long as the coating does not alter the effectiveness of the medicine."

F. Selecting Television Teachers

1. Personality characteristics factors and scales.- Do certain kinds of individuals accept the teacher in this instructional medium more readily than others?

Bretz, Some Basic PRODUCTION Principles, p. 9.
2

Ibid.

The different ways the students perceive the same teacher in the same classroom with the same television lecture, depend on their major field of studies.

Mr. Myers believes that his research has demonstrated that television teaching at the college level can indeed be a stimulating intelectual experience for students. He found some factors and the scale to qualify the television teacher as being effective. Students rated teachers using the semantic differential scale. 1-9.

Factors

Scales

1	Communication	Communicative
2	Organization	Ea sy to take notes
1-2	Communicative ability	Communicative-easy to take notes
1-2	Communicative ability	Communicative-easy to take notes
		organize-direct-clear.
3	Stimulation	Interested, stimulated.
4	Control	Uncontrolled
5	Assertiveness	Assertive aggressive
6	Composure	Poised-relaxed
7	Dynam ism	Dynamic-forceful
8	Friendliness	Friendly-sincere
9	Wit	Witty gay
10	Profundity	Profund-brilliant
11	Intimacy	Personal intimate

Lawrence Myers, Jr. Improving the Quality of Education by Identifying Television Teachers. Final Report U.S. Dept. of Health Education and Welfare (New York: Synacuse Univ., 1963), p.75

A meeting of experts in ITV and Radio took place in Hamburg from December 9 to 14, 1968. There were participants from the U.S.A., Belgium the United Kingdon, Czechoslovakia, the Federal Republic of Germany France and Sweden.

They concluded: "Teachers had not only to be continually brought up-to-date with their own subjects, but also needed training in the new teach ing techniques of radio and TV in the hope that these would make and 1 effective contribution". ...problems facing the educational world.

The message communicated by a teacher may have a different meaning for different pupils. The implication of individual differences is that the teacher must semphow supply the necessary base, or motivation or background from which to proceed. If a given behavior had a predictable effect on $\frac{2}{2}$ every pupil on every ocurence, the teacher's task would be simple.

2. Rating TV Teachers.- Students taking television courses should stimulate teachers to improve these courses, they should take part in ratin the teachers and these ratings should be published on campus for succeeding classes. The Portland State College, in 1966, was asking students to rate their teachers on whether they:

l Meterns, editor. L'Emploi de la Radio et de la Television dans la Formation des Maitres, UNESCO (Hamburg, Federal Republic of Germany;Institute for Pedagogy, 1970), pp. 1-35.

2 Ibid. a. Stimulate thinking

b. Organize content well,

c. Explain clearly.

d. Inspire confidence,

e. Consider differing opinion.

3. Who Chooses Teachers for Television.- The administration of the CCTV ITV operation should

invite teachers to participate in television courses and to forward the application for initial screening. The administration and production staff select those teachers who seem promissing and invite them to submit 2 course outlines and make audition videotapes.

On the basis of his performance and the videotape the teacher is selected as a candidate to a given television course. Besides the outline opinions from a competente teacher should be taken into consideration. According to the application he should agree to work full-time teaching by television.

1 Myers, Improving Quality Education, 1968, p. 147.

2 Clifford G., Hymen M. Chausow and James J. Zigerell, <u>Eight Years of</u> TV College, p. 13.

4. Training Teachers for Using TV.- Teachers in-service received training but gained little from

it. In response to this and in order to improve the teachers' training these points should be considered:

- a. teachers should be prepared to use the TV medium effectively,
 perhaps their adaptation is not quick.
- b. "Many of us performing on TV fail to sense the simple aesthetic l
 qualities that would be pleasing to the viewer." Teacher should
 tend to be a professional performer.
- c. Prepare students for the TV lesson using the information about the program from the teacher's guide, and motivate students to 2 learn.
- d. Make sure that students understand the objectives of the program at the beginning of each lesson.
- e. Make sure that students have material necessary for the lesson.
- f. Make it possible for students to ask questions during the lesson.
- g. Make a follow-up assignment to reinforce presentation on TV.

l Dave Bergston, "Training for the Television Teacher" in the Role of Production in Televised Instruction, (Urbana: NAEB, 1959), p.16.

Clifford G., Hymen M., and Zigerell J., Eight Years of TV College, p.13.

2

The teacher of the future will develop a special role. He will be prepared to provide more and better guidance to individual students. A more efficient medium that will supplement printed materials and oral presentations will see the development of better devices for the communical tion of information.

In some colleges graduate students are teaching in order to solve the problem of large classes with many students. In 1961 at Syracuse University an experiment was developed using television. The object was to analyze the effect of inexperienced teachers compared to experienced ones on $\frac{2}{2}$ students.

An experienced teachers was considered one who had had a minimum of 10 years of succesful experience in university teaching and who was considered an expert by his colleagues in the lecture selected. The four inexperienced teachers were selected from a response to an audition call and given their assignments.

From this experiment it was concluded that "experienced teachers could maintain their activity and potency acting anywhere by television or in front of the classroom. Variations due to relaxed, confident, brilliant and inspiring personalities showed that some teachers have more

Thomas J. Rookey "Quality the Crux of Nedia in Service." <u>Educational</u> Television (November, 1971), p.26.

1

2 Lawrence Myers. Experimental Study of the Influence of the Experienced Teacher on Educational Television, TV and Radio Department, Synacuse Univ. 1961, p.6.

effective television personalities than others. In the future it will be necessary to determine empirical factors of the television teachers' personality that produce an impact on the students. These factors will be the key to predict the most effective television teachers."

Later in 1966 experience demonstrated that in some developing countries the training of teachers is not enough for ensuring the successful use of the TV medium, but the follow up is also equally important. This was the conclusion of a group of educators from Indian, Nigeria, 2Uganda and West Indies.

G. Summing Up

2

From this Chapter II I concluded that the following points should be taken into consideration in order to get success in instructional television:

- a. Introduction of ITV at college depends on the needs,
 budget, staff, faculty and students' reaction.
- b. Basic research is essential about qualified personnel for administration, production and researching.

Myers, Experienced Teachers on Television, 1961, p.6.

C. Chu and Schramm, Learning from Television, p. 78.

- c. Basic research is essential about equipment effectiveness, appropriatness, acceptability and feasibility of CCTV or Open Circuit TV.
- d. Previews and demonstrations of the quality of the televised instruction should be produced in order to get the opinion from staff , faculty, students and other groups.
- e. Special consideration should be given to: selection and evaluation of TV teachers, production personnel and cameramen.
- f. Finally, the establishments of a consortium of colleges would help in the training of teachers and other instructors to perform as producers, TV directors, TV teachers, and cameraman This consortium may also help by opening a center designed to improve the quality of instructional television, to reduce costs and to avoid the duplication of courses.
- g. According to LassWell the model for using television in teaching consider∫the following steps: 1) Who says;
 2) What; 3) Through which channel; 4) to whom; 5) With what effect.

I should add another step which is: how to reinforce the message.

CHAPTER III

DEVELOPMENT OF COLLEGE 1TV PRODUCTION

With regard to ITV it is important to get the best qualified people possible who will be involved in the production, direction and administration of ITV. They will be creators more than custodians. Therefore, after considering the possibility of working with trained people in ITV, during the development of college television production, it is essential to keep in mind :

A. Planning and Preparation

1. To contact people.- the producer has a responsibility to contact the TV teacher in order to halp him prepare some materials, to explain the television capabilities and facilities and to get the collaboration of the artist in helping to prepare the adequate materials for the television unit production.

2. To rehearse.- The easiest way to prepare a television unit production is in a rehearsal. The TV teacher should organize the visuals in the sequence he would like to use them with the help and experience of the TV producer -director who knows how to show visuals on television and consider the picture's size ,

Douglas O. Wardwell. "The People Problem in ITV." Educational and Industrial Television. April , 1972, p.10. legibility, aspect ratio, number of words per picture, the width and height of the letters, etc.

There is no excuse for the production team not to have enough time to find out what is going to be used as well as, how and when, on a given television unit production.

Mr. Rudry Bretz said, "Rehearsal is important for coordination. This involves simplification. It means better teaching by television. There is a limit as to how far you can get simplification. Simplifica-"1 tion means economical and good teaching by television.

3.- To record.- After the agreement about materials, outline and people participation, the TV teacher, the TV producer and director should be ready for recording the television unit. The three men should decide how to make the production communicate most effectively. In regard to this point the use of the respective written cues and the list of visuals will help the ITV team production in their respective work.

B. Available Time in ITV Production

1

1. In the production of a television unit.- It is essential to consider the following:

E. Goggin "The Role of Production in ITV." NAED SEMINAR, 1959, p.22.

a possible reorganization of the subject matter; to conceive, reject and accept new approaches for teaching; getting new ideas in visual and dynamic terms; transforming ITV production, using new materials techniques and employing adequated tools. Every television unit should be revised after taping to assure effectiveness.

2. In Producing Television Series for Instruction.- There are some further suggestions

on how to prepare ITV series: get the most qualified teacher; gather the best materials well in advance of the recording; decide if a guest speaker will be involved and contact him well in advance to explain to him clearly what he will be expected to do on television. Each ITV series must be revised at least once a year to up-date it and also as a stimule for the TV teacher to improve his techniques in teaching by $\frac{2}{2}$

C. Working for a Better Quality of ITV

1. By getting the best team.- In order to get the best team for ITV production we should consider

the duties required and the experience each man brings to the job The producer must be experienced in the adaptation of learning situations to the TV medium. The director must be skilled in arranging the

Goggin, E. NAEB SEMINAR, 1959, p.22.

1

2 R. Sikes, "Preparation and Planning for TV Courses." NAED SEMIMAR 1959, p.16.

technical elements that permit effectiveness in the transmission of the learning experience. The TV teacher must know his subject matter well .1 and be able to decide which part should be adapted for television.

It is imperative that administrators of CCTV understand the need to work for ITV with others-whether they be lawyers, doctors, academicians or legislators. "Propose that we acknowledge the need to train students in 2 how to, as well as in why for."

2. Researching the Potential TV Techniques.- It is time to start concentrating on quality

instead of quantity. Most of the investigation on television's quality as an instructional medium has been made by measuring the objective results. At this time there are few investigations on the effect of improving 3 instructional television techniques for learning. This would include such things as the use of the motion picture cameras, visual composition, lighting, production designing, special effects, use of sound effects and the use of electronic, equipment.

IStasheff and Bretz, Television Program Direction and Production, 1968,
p.12.

Wardwell, "Educational and Industrial Television, April, 1972, p.12.

3

Chu, G. and Schramm, W. Learning from Television 1968, p.57.
Cattegno, cited by Anderson, said that "sight is a far swiften metals of expression and communication that speech". This is the major rearran for the need to play down the verbal side of programs to force viewers to use their gifts of vision, to find increments in learning by TV as a l result of visual reception. Of course, testing this way of communication should be based on responses to visual cues.

The use of animation, camera shots, electronic effects, superboosition and camera angles and now color should be techniques to accentuate relevant visual cues and to stimulate learning. The same point of view is supported by the people working in the production of the Electric Company.

Sometimes the producer-director and teacher had not had a great accuracy on their TV techniques. It is possible to argue that some concepts are ineffciently presented by verbal narrative that in some cases are not an efficient communication when they teach by TV. Should we adapt certain techniques used in commercial TV to improve ITV? "We might take a cue from the successful commercial programs... to determine how the psychology of laughter can be linked with the psychology of learning."

1 Charles Anderson, "In Search of a Visual Rhetoric for Instructional TV." <u>AVCR</u>, Vol. 20, No. 1, Spring 1972, p.44.

2 Ibid.

3

Joan G. and Z. Cooney, "Television and the Teaching of Reading," in the Electric Company, ed. Children's Television Morkshop, 1071

4

Wardwell, Educational and Industrial Television, 1972. p.12

Chu and Schramm concluded that visuals will improve learning on normal teaching, especially when visuals can facilitate the association process. On the other hand, visuals may cause distraction and interfere with learning.l Also Lewis, pointed out that visual unappropriately designed cause 2 distraction and the effect of the message is not perceived. He refuses what he denominates a ,ateurish lettering on graphics for television.

Ketchen and Heath (1963) cited by Chu and Schramm found that undergraduates learned more from relevant and nondaplicate visuals than from audio track alone.

Mr. Dwyer tested three means of visualization for their relative effectiveness in an instructional TV unit on the human heart. Its treatments were : line drawing of the heart; detailed share drawing of the heart; detailed picture of the heart. He concluded that detailed picture may have been distracting. The most significant treatment was the line drawing.4

Chu and Schramm, Learning from TV, p. 90.

2

1

Colby Lewis, TV Director and Interpreter (New York:Hastings House Publishers, 1968), p. 73.

3

Chu and Schramm, Learning from TV, p.90.

4

F.M. Dwyer, "When Visuals are not the Hessage," <u>Educational</u> Broadcasting Review, Vol. 2, No. 5, 1968, p.38. Mr. Hartman proposed that learning increases as the testing situations become more similar to the instructional situation. To recognize learning as a function of the instructional presentation, he used three methods of presentation by television using the video alone; using the audio alone, using a balance of the message in both audio-video.

He did not recommend putting the majority of the message on the audio channel. The reason was that if the video is not properly related, the tendency of the subject is to focus his attention on the picture and this may create a real barrier to communication.

Mr. Schlater hypothesized than "an optimum level of interference would be reached beyond which viewers recall of the TV message would be 3 impeded."

1 Dwyer, Educational Broadcasting Review, 1968, p.38 .

2 F.R. Hartman, "Recognition Learning under Multiple Channel Presentation and Testing Condition, : AV Communication Review, 9: No. 1, 1961. p.24.

3 R. Schlater, "Effect of Irrelevant visual Cues on Recall of TV Messages," Journal of Broadcasting, 1970, p.63.

Non-relevant visual information as interference included superimposition of words, equipment shadows, gesturing, hand shadows, letter or numbers on the visuals. He concluded that television viewers may be able to tolerate more irrelevant visual information than professional television producerl directors would intuitively expect.

In another investigation about ITV Schlater found that verbal video comprehension increased linearly with increasing the rate of speed to a leveling 2 off at seven visual per 30 seconds. Does this kind of preliminary research permit us to group students on the basis of their speed of comprehension from TV?

At Hunter College, it was predicted that kinescope recordings would provide a more effective way of evaluation than the closed circuit television, and that television observation would in turn be more effective than the traditional procedure of direct observation in the classroom. This hypothesis was confirmed and suggestions were offered for applying these a results to expedite teachers' education.

Schlater, Journal of Broadcasting, 1970, p.63.

2 151

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3

Ibid.

Nathan Soller and Gerald S. Lesse, The Use of Television for Improving Training and for Improving Measures of Student-Teaching Performance. Hunter College of the City University of New York, 1963, p.73. In a research of a comparison of commercial and education television station production techniques seven categories were studied. Four relevant to video depending on comera, such as lighting, graphics, background and perhaps the performer's action. The conclusion was that "similar production techniques were used by commercial and educational television stations, but 1 the commercial television station production was more dynamic."

Severin intended to put information in multiple channel communication and to obtain cues in relation to learning. He concluded:

"Redundancy of information in the audio or video channels will not produce an increase in learning over either channel alone. The presentation of irrelevant cues in either channel will cause a loss of learning from the other channel. When additional but nonredundant cues are presented in either channel, greater learning will take place. In recognition learning, visual cues are superior than aural cues."

Jr. Shper et al "A Comparative Analysis of Production Techniques found in Randomly Programs" Eugene : University of Oregon Institute for community Studies, Educational Television Project, Preliminary Report, November 1967, p. 11.

1

2 W. Severin, "Cue Summarization in Multiple Channel Communication" Wisconsin Research Center for Cognotive Learning, Madison: University of Wisconsin, 1968, p.6.

The most common complaint in ITV is about the legibility of words and symbols. It is part of the television specialists' job to see that material intended for television is clearly designed. It will insure that pictorial information is rendered with sufficient clarity to make words and symbols legile to the intended television viewing population.l

Legibility depends on: size (visual angle substended at the eye), form, shape and dimensions, stroke width, brightness contrast; color, illumination and the resolution of the display system.

"For television display of standard broadcast quality, alphanumeric symbols should substend a minimum visual angle of 10' for individual viewing, 12' for group viewing in a narrow viewing sector and 15 for 2 wide-angle viewing."

"It is possible to determine the desired symbol height of the television screen at particular viewing distance."Ratios width to height of letters of 2:3 and 5:7 are recommended for individual or narrow 3 sector viewing and 6:7 for wide-angle viewing."

1
G.F. Melley, "Ratios (width to height of letters) of 2:3 and 5:7
are recommended for individual or narrow sector viewing, and 6:7 for wide-angle
viewing." Educational Television (November, 1970), p.18.

2 Ibid.

3 151/

Ibid

Also It is recommended that line spacing be between 100% and 150% of the symbol height. More critical is the horizontal spacing between 1 symbols.

Many designers for commercial television like their word and letter forms to show up cleanly and clearly on the screen in order to faciliate an easy reading.

For instance: <u>CBS News 36</u> is a design of light traps at the inside corners $\frac{2}{2}$ of stroke nodes which help to overcome light flux.

NBC 25 has modified light traps to further retard the blooming of leter forms. Blunt but sloping seried emphasize stroke terminals, but inhibit light flux along the scanning lines. * 3

"Quality Control in television broadcasting extends to the point of transmission. The reproduction of letters or symbols itself lies in the hands of the viewers. It depends on skill in tunning the set,

1
Melley, Instructional Television, 1970, p.18
2
Rudi Bass, "Type of TV" Print (January-February, 1972), p.49.
3
Ibid.

the age and quality of the receiver and the area of the reception which l determine the final result."

This is an important consideration to point out to people who want to watch television courses at home.

3. Experimenting with new Equipment.

We know that production of instructional television and creating for television is very expensive. The research in the effects of television technique on learning has been lacking. The result of this kind of investigation could help to improve learning by specific television techniques or to reduce production costs due to exaggerated use of materials and also television techniques. Having this in consideration the Educational Broadcasting Corrporation announced in January of this year the formation of its Experimental Television $\frac{2}{2}$

Some investigations have been made, but perhaps the method used to measure the effects of television techniques was not the most precise, therefore, results did not whow significant differences in learning. For instance, there is not much statistical evidence to prove that a

Bass, PRINT, (January-February), 1972, p.49.

Fred Barzyk "TV as Art as TV" PRINT (January-February), 1972, p.21.

large size screen could improve learning. However, Hedical Schools
l
have been using this type screen.

In relation to camera work the subjective angle presentation, that is, the one presenting the demonstration work from the performer's every was superior. But the objective angle is more effective when the teacher pretends to answer "what is that?" Roshal (1949) and Gibson 2(1947).

When cues are not relevant to the subject matter, students will probably undergo a negative learning from ITV. The use of irrelevant cues to the subject matter such as the teacher's hand on the screen, and strange sound devices like train whistles and pistol shots are the least effective (Neu 1951; Harris and others, 1962).

When the original program is not well organized, the use of titles and outlines would improve learning. In this case it seems to be a correlation of improved learning from people in the lower half of the

1 Goodwin, Chu and Schramm, Learning From TV, p. 23. 2 Ibid., p.26. 3 Ibid, p.28. intelligence grouping (Northrop, 1952).

The Electric Company is using some TV techniques as extertainment for instruction in a specific educational subject "reading" which is based on the printed word. The production people say that television is associated with pleasure and if an educational program can be constructed so as to resemble popular entertainment programming, the educa-2 tional content can be assimilated with pleasure.

Videotape is useful tool for the evaluation of teachers; by studying the playback alone or with their supervising teachers, they can readily recognize their failures so they will try to improve in subsequent videotape presentations.

Videotape gives students a chance to see themselves on the screen and could be used for taping lectures by top teachers for future use in language, social studies, ecology, geography, physics, sciences.

Godwin, Chu and Schramm, Learning from TV, 1968 p.28.

1

2 Joan G. and Z. Cooney, "Television and the Teaching of Reading" in the Electric Company, ed. Children's Television Workshop, New York, 1971.

3 Henry C. Ruark, "Videotape in Use," <u>Educational Screen & Audiovisual</u> Guide Vol. 50 No. 8, August, 1971, p.4. Videotape is useful to illustrate to audiences in one place how people in other places are going about solving urban and rural problems when these tapes are played back by Extension Agents. "A San Francisco group, Ant Farm makes videotape by taking to the road their customized video van and taping American as it happens. The groups members are mostly architects and graphic designers and their work has a strong feeling for environment."1

4. Analysing Students Reactions.

When the message is well coordinated by the ITV team production through visuals, children learned more (Schwarzwalder, 1960). However, students at the college level prefer simple techniques using superimposed 2 materials. (Cobin and McIntyre, 1961).

If the objective of the teleclass is well identified, and if saving time is important, a teleclass can probably be shortened and 3still achieve the minimum requirement of teaching.

1
Michael Shamberg, "Guerrilla Television." PRINT January-February,
1972, p.61.

2 Godwin and Schramm, Learning from TV, p. 27.

3 Ibid, p.35. Note-taking during the television class is not beneficial because it interferes with learning. But a teleclass followed by workbook exercises such as "fill in the blanks" or pictures to identify would help more.

At the college level students prefer to attend small television classes than large television classes. If the teacher who presents the teleclass directs the follow-up by himself, it is useful in improving learning. If the follow-up is conducted by an assistant teacher the effectiveness of the teleclass is reduced. It would be better in this case just to repeat the teleclass. (Hayman and Johnson, 1963).3 Supervision of teachers in the classroom with television is essential .4 to the efficiency of the TV medium.

Godwin and Schramm, Learning from TV 1968, p.59.

2 Roger C. Clay, "The Influence of pupil Participation of Learning from Education TV." Education Review Vol. 23 (Feb. 1971) pp. 97-105.

Godwin and Schramm, Learning from TV,1968, p. 34.

G. Comstock and N MaCoby, "The Day to Day Job of the Utilization Volunteer-Structure, Problems and Solutions," The Peace Corps. ETV Project in Colombia, 1966, p. 86.

Children studying Spanish in the U.S.A. are first exposed to a teleclass in the classroom with the teacher where lessons presented via videotape can be repeated immediately. Later, the students is able to watch the same program televised at home. This is most effective 1 if the cooperation of the parents is also involved.

Discussion before the teleclass plus 25 minutes of teleclass, plus discussion, plus exercises was found to be the best procedure for the $\frac{2}{2}$ children at two schools in London.

"Animation helps in presenting abstract symbolic material and the message is simple to get. Music and sound effects are liked by children. Young viewers respond to humor and discondancy. Using "humor" 3 is a way to help youn people with their hard classes in school.

1

2

Wilbur Schramm, Kenneth E. Oberholtzer et al. The Context of Instructional Television Summary Report. The Denver-Stanford Project, June 1964, p.16.

Roger C. Clay, "The Influence of Pupil Participation of Learning from ETV," Education Review, Vol. 23, Febr. 1971, p.97.

3 Cooney, Electric Company, New York, 1971. D. Distribution of ITV.

In distributing instruction by TV we should distinguish between two situations:

To classroom students

To home students

1. To classroom students

a. From live television classroom and later play back to classroom on campus, or some times directly from pre-recorded videotape.
Television on campus by CCTV is used for teaching large classes . In
this case motivation tends to be similar to that of the campus classroom.

Schramm investigated 393 studies on the teaching of different subjects such as: mathematics, science, social studies, humanities, history, arts, literature, languages, health and safety, both via television and in the classroom. Television medium was reported to be effective for only some subjects such as mathematics, science, l social studies and health.

W.Schramm, Educational Television-The Next Ten Years (Stanford Institute for Communication Research, 1962), p. 40.

The Closed Circuit Television at Michigan State University, one of the largest in U.S.A., began in 1965 as a magnifier of demonstrations and as distributor of traditional instruction. In 1965, its distribution facilities were dramatically expanded in order to assist the University in solving problems of class distribution and faculty 1 load. As it has grown CCTV's production sophistication has also increased. It has come about because of a conscious effort on the part of the University Administration and faculty to develop the new media and to improve teaching and learning.

"Its regular facilities consist of two studios, a teaching auditorium and a veterinary surgery demonstration studio. The studios and auditorium are equipped with image orthicon cameras, as well as vidicon overhead cameras and associated complete studio control facilities, including effects amplifiers. The surgery is vidicon equipped and has an accompanying completely equipped control room facility."

"A mobile gear, carries its own quadruplex videotape recorder, All of these feed the CCTV videotape recording center, where seven additional quadruplex recorders, two of which are equipped for editing, are housed."

1

Personal Information from Professor Erling S. Jorgensen, Director of CCTV at Michigan State University, May 1972.

"This system feeds a coaxial cable network leases from the Michigan Bell Telephone Company consisting of eleven channels presently serving approximately 150 classrooms and laboratories in twenty buildings."

The following table, from the 1970-71 Annual Report, shows the effectiveness and distribution of instruction by CCTV at Michigan State University not including TV systems and small playback equipment which proliferate on campus.

YEAR	Courses	Enrollment	TV-SCH*
1970-71	218	63,704	59,549
1969-70	204	61,845	78,558
1 968 -69	251	75,435	84,361
1967-68	232	70,362	73,223
1 966 -67	197	62,263	73,372
1965-66	181	53,250	56.191
1964-65	80	31,324	26, 026

*Television student credit hours: TV -Sch

l Lawrence E. McKune, National Compendium of Televised Education, Vol. 15, 1968, p. 292. "Two trends combined in 1970-71 to significantly influence the function of the CCTV Studios and the Instructional effectiveness of their output. On the one hand, the trend to design instruction more systematically, to produce ITV materials more carefully and to meet more diverse and individualized requests for services from the faculty resulted in a substantial increase in desand on staff and facilities."

b. From Live TV Classroom to Remote Locations at Industrial or business firms.

This is the last distribution method of Instructional television at the college level carried out by the University of Michigan. According to Schulte Jr., director of <u>Merge</u>, Michigan's Expanded Resource for Graduate Education. "It is now a fully operational instructional television system with one-way video from two originating classrooms and two-way audio to and from students."

Earling S. Jorgensen, Closed Circuit Television Michigan State University, Annual Report, 1970-71, p.1-13.

1

2 Half F. Schulte, Jr. Masters Degree in Engineering and Business Administration via TV Classrooms. The MANGINEER, March 1972, p.6.

Participating students at remote locations in classrooms are able to ask questions and respond to instructors in the originating classroom as the class proceeds. The televised classes in Ann Arbor are relayed to Detroit by Michigan Bell Telephone Company lines and broadcast by two television transmitters operating on special frequencies set aside by the Federal Communication Committee.

"Industrial and business firms located anywhere within a radius of about 25 miles from the Fisher Building in Detroit can establish receiving classrooms on their own premises. All remote classrooms are linked by telephone to Ann Arbor for student feedback. Open 1 ines are provided so no telephone dialing is required."

"To complete the linkage between Ann Arbor and all remote classrooms a carrier service is installed by <u>Merge</u> so that courses material, sets of problems and examinations can be readily exchanged 3 between a faculty member and his students.

l Schulte, <u>The MANGINEER</u>, March 1972, p. 6. 2 Ibid. 3 Ibid.

2. To Home Students

The open distribution or broadcasting of ITV to a free audience, adults or children is the other possibility. It is directly from pre-recorded teleclass or using a pre-recorded serie.

In distributing ITV by transmitter to a general audience, in a covered area, age and sex make an enormous difference in motivation and interest. The differences between the interest levels of people are associated with intelligence, sex, education, geographical region, thinic origin, and other cultural factors. This is also supported by Chicago TV College's experience.

The size of television audience for college courses at home, even in a signal area on compassing some seven million people can be held constanly. Only at least a year is allowed to elapse broadcasts 3 of the same course.

Neal E. Miller, et al. Graphic Communications and the Crisis in Education, Report (Washington: Dept. of Audio Visual Inst., 1957).

2 James J. Zigerell, "Universities without Walls and with no illusions." Educational Television, (October, 1971), p.17.

3 Ibid. p. 17.

In 1955 NBC's "Continental Classroom" went on the air. It was broadcast at 6:30 a.m. . The main objective was to make the course available to any college in the U.S.A. 300 colleges picked it up the first year. Later some other courses in chemistry, mathematics and American Government followed. "Continental Classroom" approached more than six million students at 6:30 in the morning.

At the present time, "Sunrise Semester" is broadcast by CBS. Courses are shown at 6:30 a.m. from New York University. In 1967-68 some courses were broadcast by the CBS network: Comparative literature 436, English 382-391, Theism, Atheism & Humanism and 2Contemporary French Literature.

In a search for the most effective use of television in education, Michigan State's Continuing Education Service continues its experimental program in credit and non-credit telecourses.

Murphy, Learning By TV, p.40

2 Personal interview with Lawrence E. McKune Director of Continuing Education Service at Michigan State University, East Lansing, Mich. April 1972.

3 Ibid.

1

Chicago TV College utilizes broadcast television, renting space and facilities from the ETV stations WTTW channel 11 and WXXW channel 20. The objective is to give credit courses toward a degree to at-home viewers and in the second place, to bring higher education to students who otherwise might miss it entirely.

TV College in the school year 1971 presented courses during the day and every lesson was repeated at night which is when 2/3 of TV students are at home. Students who miss both telecasts can listen to the tapeat the Research and Audio Center Laboratory on campus.

To encourage the Television College courses, accrediting agencies, professional associations, colleges and universities accept credit earned through the TV College. In its 18 years TV College has awarded 600 degrees for work completed entirely via TV. The TV College is now in new areas: data processing and electronics. The production is going to be in color beginning in 1972.

In selecting courses for television a variety of sources have been used: studies of course interest, analysis of electives selected by the audience and analysis of recommended courses by students, teachers, and campus administrators. They have found that at least two semesters must intervene between broadcasting the same course. The majority of the students plan to become teachers.

Personal interview with James Zigerell at Chicago TV College, Chicago, January 1972.

1

During the last semestar, September 20-January 21 the TV College offered seven courses for credit and non-credit. Students enrolled in credit courses by registering at one of the 6 colleges authorized during the hours of 6-8 p.m. and 9-12 m.m. Requriments for credit students were: to view all telecasts and follow directions in the text guide; to complete exercises and assignments; to submit required work on time, and to take the mid and final exams. Fees depend on the legal residency, local state and out of state. They ranged from \$10 to \$50. Students enrolled in laboratory had to attend saturday morning. Special attention was given to hospitalized or physically handicapped people.¹

The majority of the audience for non-credit courses are adults who have no interest in earning credits: secretaries, housewives, salesmen, officers. It is closed to 50% of the total audience of Chicago TV College's total enrollment. Registration could be made at one place, the Chicago TV College, by mailing a coupon with \$1.00 for each course.

The list of TV courses offered from September 20 to January 21, 1971 included Biology Science 101-111, Business 101, Literature 116, Mathematics 105, Data Processing 101, Humanities 201, Spanish 101.

Personal interview with James Zigerell, January 1972.

Considerations about preparation of a cause in Biology Science 101-112 offered in the Spring of 1972, were:

- To specify objectives and to revise the new basic learning materials to prevent some mistakes by reviewing the classroom course and to adapt it for television.¹
- To participate in a rehearsal of a 45 minute teleclass to which special attention was given to presentation, organization, pacing, speed, quality of graphics, summary, recommendations or suggestions for next teleclass.
- 3. To review the course outline, select possible new textbooks, plan audiovisuals, emphasize homework assignments and set upface-to-face and telephone conferences.
- 4. Tape the 45 minute lecture. Producer and Director with their own notes followed them in order to tape the production. Besides the 2" videotape they used an auxiliar color 1" videotape for the selfevaluation of teacher. Also they used a cassette recorded to get the audio from the TV lecture which is sent to the Research and Audio Center Laboratory, where students can use it to complete their notes.2

Personal Interview to Mr. Ly Scalawaes Assistant Producer at Chicago TV College, Chicago, February 1972.

2 Personal observation at Chicago TV College, Chicago, February 1972. Chicago TV College , in order to improve its ITV production, carried out a survey of 179 students who wished to complete courses in Fall 1971. They asnuered the following questions:¹

"Thus far I have found the telecourses: stimulating (21) very stimulating (34); acceptable (55)."

"The visual and graphic material used in the telecast lessons: made the lessons more meaningful, (163) added nothing to the lessons, (11)."

"In my opinion the presentation of this course is: Much too fast, (16); somewhat fast (69); about right (92); somewhat slow (2); much too slow (1)."

"Do you own a color TV?" 84 Yes, 90 No..

"Do you feel that a TV College production in color would increase the educational value of a course?" 99 Yes, 79 No.

1

Personal communication to the Assistant Producer of Biology 101-102, Mr. Ly Scalawaer and Mimeograph from Chicago TV College, Chicago, February, 1972. The latest information about ITV to here students is from England. The Open University in Great Britain combined television, radio and mail. The program is broadcast by the British Broadcasting of Radio Television Corporation. It distributes materials to students and quarantees the efficient flow of material received from students. Each student is assigned a mail box at the University's Central Headquarters. All completed assignment and tests are mailed there in pre-addressed envelopes.

The Correspondence tutor is incharge of correction. He enters his comments on a three-copy form: the original is returned to the student, one copy is sent bak to the university students' folder and the tutor keeps the third. A computer is used for correcting examinations or they may be corrected by the tutor following the 1 same procedure (three-copy form).

E. Evaluation of Using Television for Teaching.

1

1. The Amount of Learning by TV.- In the few studies where methodological procedure was adequated, the conclusion was that: Overall offectiveness of teaching as perceived by students seems to be related positively to teachers with

The British Open University. Electronic Publication from Magnetic Video Corporation, 23434 Industrial Park Court, Farmington, Michigan, 1972.

E. Evaluation of Using TV for Teaching.

a. What happens at the receiving end.

The amount of learning from television depends a great 2 deal on what happens at the receiving end. One of the keys to efficient use of instructional television is apparently the coordination of the television studio and the classroom or the "receiving end". Also planning and the permanent feedback between the studio and classroom are essential for success.

"In the case of television medium, there could be a teacher at the point of imput, a teacher at the point of reception and perhaps another teacher stimulating students' learning activity. When media are used in agriculture, the teacher at the receiving end may be a rural leader or an extension specialist, or may be a forum chairman, and the materials may be prepared by a group at the agriculture research station.3

1

Frank Costing, William T. Greenough and Robert J, Menger, "Students Ratings of College Teaching Reliability, Validity and Usefulness, "Review of Educational Research, 1972, p. 522.

Chu and Schramm, Learning from TV, 1967, p.14.

3

Ibid.

Responsibilities are divided but all will work together. This involves careful planning and adequate training in the special skills required, and one person should coordinate and decide about production and presentation.

b. Feedback-Interest and Student Participation.

In relation to the feedback to the television medium there are few studies with helpful conclusions. However, students who provide their teachers with feedback performed significantly better at the final examination that the students whose teachers did not receive feedback.

Reinforcing the televised information helps learning students. Participation is considered basis if they are to recall the information in order to learn. Reinforcement could be accomplished 2 by home work, field trips or participation in discussion.

Participation of the students is essential for learning from TV. Therefore it must be carefully organized. An example of this is presenting a 28 minute teleclass followed by a 20 minute discussion with a teacher assistant. More mature and highly motivated people, can be taught by TV without the presence of the teacher.

Costin, Greenough and Menger, Review of Educational Research, 1972, p. 522.

1

2 Ronald F. Clark, "Reinforcing the Message" Educational Television International, Vol. 4 No. 3, 1972, p. 183. Teacher assistants should take special notes about questions raised by students in order to improve TV lessons for the next pre-

A teacher should have office hours during the week to permit the students to visit him or to call him to ask for explanation. The teacher should welcome constant evaluation and constructive criticism while the course is in progress. Also correspondence by mail or cassette is effective.

The TV teacher should assign problems and he should train assistants in what to do when they meet the TV students. They should correct problems and have discussions with the students.

In remote classrooms it could be possible to have cameras and a monitor in front of the TV instructor to observe the students' faces registering the level of interest and he can direct specific questions to a particular student. he receiving rooms should have open mikes so that any student in any remote classroom can ask the instructor a questions without a special signal device.

1 Goggin, NEAB, Seminar, 1959, p. 22.

Some types of viewer participation techniques to learning from televised instruction were researched. eg.: Pupils from two British high schools were selected and were randomly divided into three groups 1 of eighteen each.

Each of these groups was exposed to a separate procedure which are described as follows:

- a. To watch a 25 minute class without any type of participation, neither before or after telecast.
- b. To watch a 25 minute class and after the telecast, to do workbook exercises during 10 minutes.
- c. To watch a 25 minute class and after the telecast to take part in a 5 minute oral participation plus workbook exercises during 10 minutes.

The conclusion in both schools was that learning for the c group increased at a five per cent level of significance.

The Key factor in this experiment was the discussion between assistant teachers and their students during which difficult concepts were explained.

l Roger C. Clay, "The Influence of Pupil Participation of Learning from Education TV: An Experiment in Methodology of Program Presentation," Education Review, Vol. 23 (Feb. 1971), pp. 97-105.

Therefore, it seems that the question is not how and where to adapt TV into the course of study, but how the learner can achieve maximum learning.

For the future it will be essential to discover how the learner should be stimulated and directed by TV to various learning opportunities. What is the proper relationship between the teacher-learner-stimulation?

The conclusion of the National Seminar for the Improvement of Televised Instruction was that: "deficiencies in ITV programming deal with the poor understanding of learner reaction."

The participants at the seminar agreed that "there was over concentration on "what" went into the tube without thinking "what effect" was intended."

Clay, "The Influence of Pupil Participation," p. 105.

1

2 NAEB, Toward a Significant Difference Final Report National Project for the Improvement of Televised Instruction, 1965-1968, p. 196. Deficiencies in the classroom use of TV dealed with the fact that student response also depends on stimuli beyond the organized presentation. The classroom itself has to permit the effective follow-up to allow interaction between material on TV and the student."

2. By the Medium Effects- Production.

It is important to be aware of what effects are really due to factors other than television, video and audio. The actual criticism of televised instruction does not deal with the inherent or necessary limitations of television. This means that students with unfavorable attitudes toward ITV should be taught in another way. If the students do not want to take TV courses, the television medium will be usually ineffective.

Experiments or evaluations of TV instruction based on this type of students reaction will be affected by his attitude and it is difficult to get an objective opinion of the quality of the teaching or the production. 2

NAEB, "Toward a Significant Difference", p. 11.

2

Keith W. Mielke "Evaluation in Learning from Televised Instruction." in <u>Instructional Television</u> ed. Richard C. Burke (Bloomington:Indiana University Press, 1971), p. 104.

3. From Researchers Specialists' Opinion.

The rescatcher operialist in ITV can be a valuable resource person in planning and as cuting the production, in helping to specify the course objectives and in evaluating the results. Instructional television is an expensive venture. It is recommended that a research specialist be hirtd to have the chance to get better results rather than specifing a lot of money with no results.

4. Analyzing Costs.

We can make instructional television economically justificable by increasing the number of students who receive instruction by television, or by increasing the period of time over which the experiment is used. We can estimate that for example, the cost operation of an instructional television system for 10,000 students may be as much as \$250 a year per student. However, if the number of students using television is raised to 500,000, the cost per student could be as low as \$12 a year."²

5. By Cost Benefit and Cost Effectiveness Analysis.

System analysis is a technique for problem solving taking into consideration:

Mielke, Instructional Television, 1971, p. 105.

2

1

John W. Keaney, Televised College Courses New York: The Fund for the Advancement of Education, 1962, p. 34.

a. Objectives to be reached,

b. How these objectives can be reached,

c. How we know when the objectives have been reached.

Cost Benefit and Cost Effectiveness Analysis are used after the System Analysis in order to choose among alternatives for reaching the desired objectives. The best alternative is the one which has 1 the highest ratio of benefits to cost.

6. Students' Reactions to ITV.

1

2

The evaluation, "Today's Teacher," is an example to be filled out by the student at least once during the course, is widely designed to determine the effectiveness of the teacher and the production.

7. Quality of Instructional Television in Relation to Production Presentation and Learning.

In this case is important to define terms specifying objectives and to state with conceptual clarity what the goals are and how to measure them. After these consideration the Quality of ITV should be in a closed relation to its elements, production and presentation in order to produce the desired effects on learners.

Commission on Instructional Technology. <u>To Improve Learning</u> (Washington: U.S. Government Printing Office, 1970), p.79.

Meyer L. Jr. "Experienced Tcachers on TV", 1961, p. 3.

F. Summing Up of Chapter III

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From this review of the literature in the field, I tried to produce a sequence of how the production of teleclasses should be developed from its planning stages to its evaluation. This is hard work, but if people keep this sequence and their objectives in mind they will be successful with ITV.

Many good researchers have been working, for instance, in planning and preparation. They agree that teachers should be hired on a fulltime basis. Television techniques have been studied in order to improve instructional television. However, this kind of research is not constantly investigated because of a lack of qualified personnel to seek information about the use of television techniques and their effects on learning and also due to lack of money.

Therefore, the Educational Broadcasting Corporation announced in January of this year, 1972, the formation of its own Experimental Television Center supported by \$218,000 in grants from both the Rockefeller Foundation and the New York State Council of the Arts. In addition the Ford Foundation announced a grant of nine million dollars to Education in Broadcasting for 1972..

Barzyk, Fred. "TV as Art as TV" PRINT (January-February, 1972), p.21.

Another important point that needs more research is the one that deals with the amount of learning achieved by television. At this point a researcher in ITV is needed to design follow-ups and evaluations.

In distributing instruction by TV there are some examples which are possible to set up in other countries. For instance in relation to CCTV it should be the Michigan State University. In the case of broadcasting instructional television to home students there are good examples as: Chicago TV College, in Chicago, MERGE originated in Ann Arbor at the University of Michigan; in the program, MERGE, is important to point out the cooperation of industrial and business firms. The largest of these systems is the Open University, indeed this sytem need a great number of people to be effective.

Something that is important in ITV is evaluation. it could be from the point of view of:

- 1. The amount of learning by TV,
- 2. The medium effects- Production,
- 3. From researchers-specialists' opinions,
- 4. Analysing costs,

1

- 5. Cost Benefit and Cost Effectiveness Analysis,
- 6. Students' reactions to ITV, and
- 7. Quality of ITV in relation to Production-Presentation Learning

Mielke, ITV Evaluation, 1971, in Instructional Television.

CHAPTER IV

INFORMATION FROM INSTITUTION USING TV IN 1972

In order to complete this study and get actual information on the use of TV medium for teaching at college level, I designed questionaires for CCTV Administrators, Producers, TV Directors and TV Teachers.

A. Selected Institutions.

According to the Compendium of Televised Education, Vol. 15,1968, edited by Lawrence E McKune, I selected the following institutions: Michigan State University (CCTV and classroom 10 MMSB), Purdue University; Ohio State University; Pennsylvania State University; Ohio State University, University of Minnesota; Northern Michigan University; Central Michigan University; Eastern Michigan University; Syracuse University; University of Detroit; University of Illinois; University of Nebraska Television Department (Great Plains National Instructional Television Library) and National Instructional Television. Questionares were mailed to Administrators, Producers, TV Directors and TV Teachers who were using TV for instruction in the above institutions.

As the result of this survey I am enclosing the most important questions with their corresponding answers. The results will help me to organize the Instructional Television at College level in Colombia. However, I wish that people from other developing countries used this
research at their own convenience in order to improve the use of the television medium for instructional information.

B. Responses

Administrators of CCTV.- Of the 10 questionnaires mailed,
 9 were returned with the following answers :

Questions Answers Yes [] No [9] Do you select students for TV courses? Does the College allow students to choose between TV lectures and face-to-face lectures? Yes [2] No [7] Does the college have TV training courses for new Yes [4] No [7] instructors? Does the college carry out research on the effectiveness Yes [6] No [3] of ITV? Does the college receive or interchange TV courses? Yes [5] No [4]

Questions	Answers
Does the students ask for TV lecture's audio to complete their notes?	Yes [4] No [3]
Before students enroll in a TV course, do thay	
inquiry about the teacher and try to watch a preview	
of the classes?	Yes [] No [8]
Do you select assistant teachers for the TV classroom?	Yes [] No [7]
What is the feedback system used by CCTV?	
Answers: "Departmental staff meeting, Departmental Head dis	scussion or
meeting",	

"Through the educational development program and through visits to various departments",

"Conduct worshop and open house",

"We do not know",

.

"Through university policy",

"Personal contact mostly",

"By showing what facilities are available",

How do you promote TV courses?

"By sending samples and literature to departments", "We do not",

"Letters to teachers and personal contact",

In your opinion, why do students take TV courses?

"No choice",

"No alternative",

"Convenience",

"Schedule require it",

"Local instructor do not exist",

"By choice no by chance",

"They select subject matter no the format",

Who selects the TV teacher for a given course?

"The Depart ant offering the course",

The Department and college in conjuction with ITV",

"The Director Radio TV Center",

"His Chairman or Dean",

On what basis do you select TV teachers for college courses?

"Little to no imput to teacher selection by TV",

"They are assigned",

On what basis TV director is selected for TV courses?

"Professional experience",

Experience and training",

"Work load; Reassigned by Director",

"Schedule availability",

"On his academic interest and directing talent",

"Has predetermine! shot in TV",

"Interest in subject, general competence",

On what basis the producers is selected?

"Interest in subject, general competence",

Producer is the instructor or teacher",

What is the reaction of students at Instructional Television at your college?

"Neutral" (6 answers) "Positive" (7 answers) "Negative" (5 answers)

Among the TV production staff do you include a research specialist? if yes, please explain why?

> Only one answer yes and give the following explanation. "To assist the producer-director to produce a more effective TV course", (Pennsylvania State University).

How do the students prefer to attend to the TV lecture?

Only one answer:

"Accompanied by other students",

Where do the students prefer to attend to the TV lecture?

"Classroom TV",

Who makes the decision on the production and presentation of new **TV courses?**

"Production Manager or Supervisors"

"TV is one unit",

"Department offering the course and TV radio Department",

"Instructor and producers",

"Director of ITV",

"Faculty member assigned to course",

"Departments, the Director of Learning Resources and the Academic Visual Production",

What is your college doing in order to improve the quality of instructional television?

"In each case, the learning resources division",

"Moving away from CCTV and to on air",

"Carefully development in a sistematic way and the assistance of the instructional development department",

Pre-Production meetings-rehearsals. Better faculty
understanding of ITV use."

"Pre-production meetings-rehearsals. Better faculty understanding of ITV use."

"Upgrade equipment and system. More emphasis is on quality of presentation",

"Improving studio facilities adding color",

"Improving quality of production and directing",

"Updating old equipment",

What is the feedback system used by CCTV?

"Telephone feedback in some classrooms."

"Each instructor is free to seek his own feedback".

"Discussion groups-occassional survey",

"Direct and tru staff",

"Evaluation sheets",

"Questionnairies"

The College is supported by:

. •

State Budget	<u>Private</u>	Donations	Federal	Other
100%				•
100%				
100%				
36%	3%	2%	19%	30%
40%	30%	20%		10%

What will be the future role of the Instructional Television in your college?

"Segments, rather than full courses"

"Expect continued use-May explode on us -15-20% increase expected each year",

"More individualized instruction",

"Continued expansion and improvement increased used"

"The demand will increase need for better equipment",

"Will continue to grow as demand for college education",

"Some increase in use",

"Will play a greater part in our total broadcast operation",

"Cannot predict",

On what basis can you measure the efficiency of your CCTV?

"Comparison with non-TV use",

"Post course testing and grade comparison",

"Examination scores",

"Budget vs student credit hours",

"In the response of the student to the instructor",

"Frequency of use, continuance of use, feedback",

"Cost per student-credit-hour",

"Enrollment and TV questionnaires administered",

How much does it cost to produce a 50 minute videotape lecture?

"\$100-1000

\$90-1,200

\$500-1,000

\$600-3,000

\$150-1,500

+ 65.00

2. Producers of TV Courses.- Ten questionnaires were mailed. Eight were returned from the following universities: Ohio State University, Purdue University, Northern Michigan University, Easter Michigan University, University of Minnesota, Central Michigan University, Classroom 10 WMSB and Michigan State University of East Lansing, Michigan.

	Questions_		Answers		
Are	the TV courses produced at CCTV	in black and	i white? Yes	[6] No [2]	
Are	those instructors who volunteer	to pioneer i	in this area		

of communication effective TV teachers? Yes [4] No [4]

If you produce more enjoyable TV lectures, would you perhaps be more effective in your communication? Yes [7] No []

When producing TV lectures with either new or experienced teachers, do you always have a rehearsal in order to improve the quality of the instruction? Yes [6] No [2]

Do you help the teacher to get the material ready? Yes [8] No []

What do you think would be the most effective ?

- 1. To produce a TV lecture of 50 minutes in lenght, or [3]
- 2. To produce a TV lecture divided into 2 or 3 units consisting of 12 minutes each? [5]

How much does a 50 minute TV lecture cost per student?

"\$1,00, \$2.00, \$0.25".

The remaining 5 universities did not answer this question.

In producing TV courses what is the most difficult problem for TV teachers?

"Preparation of the outline course",

What is your most important advice to the new TV teacher regarding his performance?

"To perform in a comfortable conversational manner, communicating with a single viewer-students",

"Pre-screening-prepare several tapes for evaluation. Home students evaluation",

"Be yourself, communicate, speak directly",

"Demand a response from teachers and students",

"Relax",

"Be natural strive to achieve a one-to-one relationship. Don't rush and don't drag",

"Relax and talk to the camera as if it were an individual person",

How is videotape most effective for the selfevaluation of the new TV teacher?

"Teacher should see his own manerism and style of presentation and hopefully adjust performance accordingly",

"To see what would have to be explained in the absence of the tape",

"Viewing his performance after the lecture",

"Candid shooting ",

Watch himself and evaluate",

"We have information that videotape is effective to correct the performance but need more research about it, how is it effective?", In teaching via television, what are the factors that you consider contribute more to the succes of a TV teacher?

"More use of the outside media. Humorous personality",

"Presentation ability, directness, visualization, initiative desire"

"Interest in using the medium, a commitment and believe in TV which should be conveyed to the students in the first lecture, along with the reasons and some examples",

"Understanding the advantages and limitations of TV",

"Ability to appear, relaxed and friendly, Ability to organize",'

"Awareness of the medium. What one can expect of it. One cannot continue to use classroom techniques exclusively. One must adjust to meet the demand of TV",

"Imagination in reaching the subject visual. Self assurance"

What would you do as producer to help the teacher to communicate a lecture efficiently?

"Practice reading a teleprompter until no one could tell that he is using it. Explain that he is only speaking to one student, the camera",

"Spend two or three hours with teacher in studio learning aspect ratio, lens, audio response, changing camera.

"Help him trying to use visual examples",

"Adequate use of interviews, demonstrations, film, slides, graphics",

"Abandon the lecture format and use television only for those aspects of a course which tend themselves to effective television visualization",

What do you understand by Quality of Instructional Television?

"Achievement of behavioral objective. Success by students in their courses. Positive attitudes in teacher and students. Efficiently in reaching above goals. "Evaluation of program, feedback. Accountability. Effectiveness, visualization, graphics, recording",

"To which students respond favorably. They like it and it teaches as well",

"All TV and current elements fitting together",

"Technical production quality of the lesson. Visualization Using TV graphically to illustrate instruction. Quality of presentation and accuracy of the material",

What suggestions do you have for improving the quality of the TV courses?

"To have a professional TV lecture (Actor, announcer) to present the program written by the discipline expert and editor by the producer. Keep narrator off camera as much as possible",

More expenditure of time and money, more visuals and better "time for assimilation and rehearsal",

"Better teachers (performers) use an actor if necessary",

"More and better understanding on part of instructor on use of TV" "Have teachers devoted to TV completely while they are in production by giving them leave from their other teaching duties",

"Less lecture, More media production. Students materials directly coordinator with projection".

"TV should be regarded as a component of an instructional system and not as a sole method of teaching a particular course",

What particular characteristics of the TV medium constitute disadvantages for the effectiveness of teaching?

"Limited image size and resolution, limitations on 2-way communication, inclination toward passivity when not accompanied by specific mechanisms to faster student involvement",

"Immediately feedback, Opportunity for questions",

"Pomposity, non-ability to ask questions, lack of knowldege of what medium can do",

"Lack of "in -the-flesh" contact",

"Technical problems",

"That little tiny screen"

"Limited feedback from the viewer (student) Limited size and resolution. Cost of production",

How long have you been producer of TV courses?

"10 years, 4 years, 5 years, 8 years, 5 years, 15 years; "3 1/2 years, 7 years"

Have you lately had opportunity to participate in a course or workshop about the improvement of the quality of Instructional Television? If yes, could you give some of the points discussed?

"Color vs black and white . Federal funding".

"Visuals a special effect. Cassettes & Catridges"

"Systems thinking. Innovate approaches. Student enrollment. Simplicity",

What was your major at your college? The most common answers were? "English, Speech-Communication; R-TV; Communication-Speech. Emphazise in Broadcasting; Political Science, TV.

According to present statement in the questionnaire, what is your most important advice to the new TV teacher regarding the designing of graphics?

6 answers: "Limited number of words"

5 answers" "The simpler the graphics the better the communication will be"

4 answers: "Aspect ratio, letter size and essential area"

3 answers: "Limited resolution power"

1 answer: "Scanning area"

3. Directors of TV courses.- 10 Questionnaires sent; 10 answered from : University of Minnesota; Michigan State University; Eastern Michigan University; Northern Michigan University; Classroom 10 WMSB, East Lansing Michigan ; Central Michigan University; University of Connecticut; University of Detroit; Purdue University.

Questions

Answers

Have you had opportunity to participate in courses about improving of quality of ITV? If yes could you describe some of the points discussed? Yes [1] No [9]

Do you believe that the rehearsal helps to improve the quality of the televised instruction? Yes [8] No [1] In a TV lecture all cues that the Directors must give during the show are marked on the script. Do you write your own cues? Yes [6] No[4]

Time is very important in producing TV programs. During the rehearsal do you write down the approximate running time as a guide in your control room? Yes [5] No[5]

In producing a TV course everything becomes a routine for example, the camera, the teacher's position and settings, Do you try to change this routine by suggesting new ideas to the teacher and producer? Yes [8] No[2]

Do you agree that the TV Director must understand the subject matter to communicate effectively? Yes [4] No[6]

Do you prefer every TV lecture divided into 2 or 3 units rather than one unit consisting of 50 minutes? Yes [4] No [5]

Do you the the producer and teacher consider the cameraman's suggestions for improving TV courses? Yes [9] No[1]

teacher revise every TV lecture after
the production of videotape? Yes [] No [10]

Do you always look over the size of the letters in each graphic to assure legibility to any viewer,? Yes [8] No [2]

How long have you been a Director of TV courses?

"15 years," 8 years, " "9 years," "10 years," "3 months."

What was your major at your college?

"Audiovisual, Radio and Television; Drama, Speech Education, Political Science, Speech and Communications."

Do you select cameraman for TV lectures, if yes, on what basis? TV Directors answered: Yes [2] No [2] No answer [6] The two TV directors who answered yes gave these as basis:

> "Ability and speed, selected from a pool of trained cameramen, both staff and student according to availability. The director assigns them certain tasks."

"How well they do their jobs. How well they follow orders, and whether or not they will do what I say during a show. Also their command of TV terminology and their talent in setting up shots, lights, sound , etc." How can the cameraman improve visualization and creativity for future TV courses?

"It must depend on the course"

"By taking an active interest in the content of the program."

"Alertness, composition, iniciative, suggestion." "By alert at all times and always looking for new and interesting shots."

He can improve visualization by good composition and smooth camera work. I am not sure how he can improve creativity for future courses."

"Cameramen must be ever watchful for a new twist, a different angle, an new shot, or training an old one differently."

His visual creativity is hampered during a planned production, but his ideas and suggestions are very helpful for future planning." "By staying alert to what the show is all about and using his mind in the consideration of changes."

What suggestions do you have for improving the TV courses?

"Use more audio response between instructor and students",

"More pre-production time spent by teacher, director and producer",

"Utilize color equipment",

"Pick teachers who are good TV performers",

"More free time for instructors involved in ITV and more money for production. Also formal evaluation procedures.

"Programming beyond the attention span and too much talking face",

"Giving instructors more time to prepare TV lecture and using instructors truly interested in using TV".

According to your experience, what natural qualities or abilities in a TV teacher are of help in producing effective TV lectures? "Knowledge of TV, willingness to experiment. Creativity. He or she is a "bam"

"A well structured organized mind calmness, constant voice tone. Imagination.

"Animated speaker. Enthusiasm. Knowledge of entertaining and like able?"

"Patience, organization, ability to relax",

"Relaxability, tolerance for ambiguity. Ability to speak to a camera as if it was a classroom. Flexibility",

"Experience. Effectiveness. Desire",

"Easy going personality. Inherent ecitement about subject. Ability to visualized. Ability to communicate.",

" Know his subject. Willingness to try new visuals. Be able to communicate. Flexibility.

What do you understand by quality of ITV?

"Ability to compare favorably with the program and production quality of other programming" "Goals and objectives, format, technical quality, application to intended audience student preparation and follow-up activities",

"Educational success",

"Technical TV is medium as well as sophistication and depth of the product itself",

.

"Visuals and content quality of the TV lecture. How does the instructor and lecture come accross. Is it interesting and informative to the student."

"Effectiveness of material, production standards", "No opinion" 2 answers

What must you do as a Director to help the teacher and producer to communicate A TV lecture most effectively?

"Have them communicate with me",

"Everything",

"TV is visual. The best way to communicate by using TV is provide the "proper" or "best-visual image at each moment, or, show the student what he needs to see", "Provide the best possible video and audio for the course"

"Organize subject matter for TV presentation and visualize subject wherever feasible",

"To put the teacher at ease in the studio",

"Make sure that the studio and all visual materials are in order and ready for him when he arrives. Distract him with cues as little as possible",

From the point of view of quality of ITV, what factor do you use to evaluate a lecture?

"Teacher evaluation, student evaluation",

"The same for quality of ITV",

"Feedback sheet each week from students viewing lecture or discussion. Professor's evaluation of the students work as compared to work of those students in previous non-TV classes covering the same subject matter".

"As assimilation of material and interest", "Amount and quality and variety of visualization", "Visual aids, sound, production and quality of recording",

"Visualization, the dynamic of the instructor and his ability to communicate",

"No opinion",

.

•

The most used TV techniques for production of courses are :

First:	Superimposition-split screen.
Second:	Close up
Third:	Medium shot, Pan left-right, Dolly in-back
Fourth:	Reverse angle, front angle.

The most common questions from teachers at television training courses are about:

First:	Availability of time
Second:	Graphics .
Third:	Cameras
Fourth:	Assistants
Fifth:	Audio, copywright, contrast, lights.

E. Summing Up of Chapter IV

General and relevant information was gathered from qualified people working for ITV. This type of survey should be carried out more often since it serves two purposes: to know more about ITV and to stimulate people working for ITV by letting them know that people outside the College are interested in the use of television for teaching.

I included most of the answers given, considering that they are first hand information from people working directly with ITV. However, as you will observe, some people gave answers not related to the questions. Perhaps, you can explain why this happened. By studing these answers we can learn about details of Instructional ITV.

Something that happens in my opinion was particularly interesting. It was the one that shows the lack of cooperation between the CCTV Administrator and the <u>TV</u> teachers. I make this tatement based on the fact that only two teachers answered the questionnaires eventhough all questionnaires for administrators, producers, TV directors and teachers were originally mailed to the CCTV Administrator for delivery to the respective people involved in ITV. I did not include the questionnaires received from these two teachers.

It is important to include a research specialist on ITV as Pennsylvani State University recommends: "To assist the producer-director to produce more effective TV courses."

It is interesting to note that private capital donations and State funds are being used to support CCTV both on and off campus. The future ITV lies in the ability to increase the number of students reached effectively by television.

In the survey about producers of ITV, they agreed that the production of short units was preferable to the production of larger ones.

Enjoyable television lectures are more effective in their ability to communicate.

Producers said that the most difficult problem for TV teachers was "preparation of the course outline." Rehearsal was recommended as a way to improve the quality of ITV.

Most producers of ITV have backgrounds in English, Communications and Speech, but it is possible for other people from different fields to study production or direction on television and even teach by television.

In the survey about TV directors, I discovered that a great number of directors have not had the opportunity to !articipate in improving the quality of ITV. This is surprising considering that at this time there are many colleges with excelent facilities, and that up-to-date knowledge is essential to progress. Some of these people have been directing tolevised courses for many years.

It is important to give major emphasis to how to select cameramen for a particular TV course. Only three people answered this important question. Even more, TV directors are often forced to accept cameramen selected by the Administrator which does not always work out.

Little motivation exists to research the effects of new TV equipment on learning.

In teaching via television there are some factors that teachers should have in mind to succeed.

Producers say:

"Interest in using the medium, a commintment and believe in ITV and TV which should be conveyed to the student in the first lecture, along with the reasons and some examples."

"Awareness of the medium. What one can expect of it. One cannot continue to use classroom techniques exclusively. One must adjust to meet the demand of TV."

"More use of the outside media. Humorous personality."

"Presentation ability, directness, visualization, initiative, desire."

"Imagination in reaching the subject visual. Self assurance."

"Ability to appear, relaxed and friendly. Ability to organize ."

"Understanding the advantages and limitations of television."

TV directors say:

"Knowledge of TV willingness to experiment. Creativity."

There are some suggestions to improve TV courses.

Producers say:

"To have professional TV lecturers (actors-announcers) to present the program written by the discipline expert and editor bu the producer. Keep narrator off camera as much as possible."

"More expediture of time and money, more visuals and better time for assimilation and rehearsal."

"Better teachers (performer) use an actor if necessary."

TV directors say:

"It must depend on the course"

"By taking an active interest in the content of the program".

Alertness, composition, initiative, suggestion."

From the point of view of Quality of ITV, TV directors emphasize certain factors for its evaluations:

"Teacher evaluation, student evaluation."

"Feedback sheet each week from students viewing lecture or discussion. Professor's evaluation of the students work as compared to work of those students in previous non-TV classes covering the same subject matter." Instruction by television at the college level in Colombia should be introduced into a well organized institution, having in mind a quality tru qualified production team and good financing. If this program is only financed for a few years and objectives are forced to change with every government, success will not be obtained.

Special attention should be given to the factors that are apparently involved in learning by television. These factors would permit the selection of students on the basis of motivation, the student's ability to imitate and oberve, and the rate at which he learns. If we are successful in this selection, which is not easy, we are going to save time, money and it will result in giving the best students a chance to get ahead. Also it means that the new institution should consider a research position for someone choosen among those that have been prepared.

In starting a new CCTV program there are always some basic principles which must be followed in order to achieve success. In the case of using television for instruction, it is essential to be aware of people's reaction, budget, the availability and effecttiveness of TV teachers, producer, cameraman selection and costs in relation to 1TV. The result of this apparently easy research would permit an institution to succeed or to fail in using television for teaching.

To confirm the above we need only send a letter to any college asking for information about the success of "CCTV in that particular college. The answers could be : "We no longer use CCTV," "we changed to a new idea," "the personnel working on this went to another place."

Basic research about COTV or broadcasting of 1TV is essential, but this has to be constantly checked to see how the operation in succeeding in relation to the investment and the effects on the students. It is not possible to deny that this kind of relation between the research and the production is forgotten by some people at ITV. Some of the factors that can be helped by research are effectiveness, appropriatness, acceptability and feasibility of 1TV.

without doubt, planning and researching will improve televised instruction and help in organizing the appropriate production team: Producer, Director, Teachers Cameramen. Researcher and the rest of the production crew.

Schools would have to change their minds in relation to using television for instruction.

If schools are not going to be aware of the need for trained personnel in using television for instructional education, the goal of "<u>Through a Significant</u> <u>Difference Using Television for Teaching</u>" will never be reached. Some people may be against this point, but the reality is that in part, and according to my research, administrators and producers of CCTV have little or nothing to do with the selection of teachers who work for television. Furthermore, the Dean or chairman of department make the TV teachers selection but administrators and producers do not know the basis for this selection.

The practice of well designed research will permit improvement in teaching by television by making it more effective, to increase motivation, to select personnel, to select students and to recognize teachers who use the medium effectively. Thinking about this, staff, faculty and people outside the college should give their evaluations and these answers should be analyzed year after year.

It is essential to keep in mind that the audience of the CCTV is changing every year, and students' interests are changing, too. The only reason for the existence of CCTV is because students exist. There is no reason to forget students' reactions to learning by TV.

1 say that students should have the opportunity to select between learning by TV and learning face-to-face because : 1) Perhaps some of the students that go to - college have negative attitudes toward TV: then, selection permits us to eliminate this factor: 2) some students are gifted with the ability to learn by observing or by imitating demonstrations. Then, selection also permits us to get the best students for learning by TV. 3) For schedule reasons, some are only able to attend at special hours, hence schedule arrangements and repetition could be set up to solve this problem. 4) Speed or ability to learn is faster in some than in Therefore, instructional television can make others. the most of this axiom. Some colleges today report that students may spend more time or less time working at college because of their needs, interests and ability to learn.¹

¹Jack Hart. "Nebraska's Ivy-Free Tcchnical College," American Education (January-February, 1972), p. 10.

I don't agree that slow students should be ignored. They are going to spend more time but they will make it.

In relation to television producers, directors and cameramen for producing instruction by television, it is important to keep in mind that perhaps some teachers or other experts such as physicians, dentists, veterinariansm engineers or agronomists, may have the capability to study production and direction of instructional television. They know what they must show their students and what they must learn. Therefore, they could make instruction by TV more effective.

These suggestions would help to improve instructional television, to reduce costs and to plan for the future.

The future development of instruction by television at the college level in Colombia could be successful reality if we get official institutions, private institutions and individuals to give their financial and human support for a better educational level.

Every government "wishes all men to be educated fully to full humanity," no matter what social status they might have.
FUTURE STUDIES

- Special study for training cameramen for working in ITV.
- 2. Integration of television, radio, newspapers and schools for adult education in Colombia.
- 3. Wich of the instructional and commercial television techniques really help students in learning.

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