

CLASSROOM OBSERVATION IN THE MANHATTAN ELEMENTARY
SCHOOLS THROUGH CLOSED-CIRCUIT TELEVISION

by

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INTRODUCTION

The purposes of this study were to identify the needs for a program of closed-circuit television for observational opportunities, to review the established programs now in operation in other Schools of Education, and to present a plan of classroom observation in the Manhattan Elementary Schools through closed-circuit television. It was the writer's aim to present a suggested plan of observation through closed-circuit television that would in no way be detrimental to the boys and girls who were being observed, a plan that would be satisfactory to the classroom teachers of the Manhattan Elementary Schools, and one that would be beneficial to the training of the observers. The writer was aware that interest had been directed in an inquiry of the availability of closed-circuit television for the purpose of observation in the Elementary Schools, and felt that its merit deserved careful and extended study. It is quite apparent that closed-circuit television exploratory and experimental phase has been ended. As a training aid, closed-circuit television is neither new nor unique; yet there appears to be a hesitancy on the part of some educational leaders to take advantage of the many opportunities it offers. Television is a tool for the use of educators and it holds promise of improving the effectiveness of the educational process.

Lee Campion, Associate Director, Technological Development Project, National Education Association, Washington, D. C., is reported as saying, "But educational television is also an excellent device in formal teacher training itself. It is especially valuable in providing opportunities for the observation of classrooms and teaching methods

in practice....."¹

¹Lester Ashwin, "A Survey of Informed Opinion on Television's Future Place in Education," Educational Television: The Next Ten Years, p. 26-27.

THE NEEDS, VALUES AND METHODS OF OBSERVATION BY STUDENT TEACHERS

There seems to be evidence today that the general public is waking up at last to the fact, long known that the quality of the future of our state depends, in the end, upon the quality of the education it offers its citizens. As the modern office, factory, home and farm have been adapted to the advances in technology, so the schoolhouse is changing. But methods of education are changing more slowly. To use most effectively this technology (television included) educators need to learn much more about the basic dynamics of learning, about motivation, about the adequacy of teaching techniques, old and new, and about the kind of learning experiences which are most effective for various kinds of subject matter and for children of different intelligences, emotional make-ups and backgrounds.¹

It is quite evident, through press, radio and television, that the public has come to realize that teaching is one of the most important professions from the standpoint of human welfare. The constant plea for more buildings, more teachers, better methods and higher standards continues to be heard in every community.

A rapidly growing student population has caused American educators to consider the feasibility of using various media of mass communication for some phases of instructional programs. One area in which increased enrollment has created a serious problem is in teacher education, where students are expected to observe the techniques of classroom procedure. It has been proposed that prospective teachers might observe classroom procedure via television as a practical solution.²

The preparation of teachers for the future creates a real challenge to the profession and demands widespread consideration of the teacher education program.

¹Lawrence F. Costello and George H. Gordon, Teach With Television, p. 175.

²Herbert P. Rumford, Kansas State College of Pittsburg, "An Experiment in Teaching Elementary School Methods via Closed Circuit Television," The Journal of Educational Research, Volume 56, Number 3, (November, 1962), p. 139.

The enduring improvement of any society depends upon the education provided for its young people. The effectiveness of that education, in turn depends upon the quality and type of preparation provided for those who teach the young. Consequently, the relationship between trends in education and the preparation of teachers is both intimate and significant.¹

The growing importance of teacher education is reflected in the standards which the profession is eager to establish. No longer is the responsibility of the education of the teacher in training identified with only the college where he attends, but it is shared by the members of the profession on the local, state and national levels.

Since more people are engaged in teaching than in any other profession in the world, it is to be expected that institutions of higher education are engaged in the preparation of more teachers than of members of any other profession.²

One of the problems which may be faced by a student preparing to teach in the elementary grades is the lack of understanding of child behavior. This is one of the greatest handicaps a student teacher has in planning rich, meaningful experiences for children. Before the student teacher is required to start activities in the classroom, there is need for sufficient observation in order for him to know what he must be prepared to do and with whom he must be prepared to work.

A sensitivity toward children and a feeling for them is not developed to its greatest depth through reading about children and their developments. The opportunities for observation offered the pre-training student will make a great difference in his understanding

¹Dan Cox, "Initiating a Program of Pre-Student Teaching Laboratory Experiences," Journal of Teacher Education, p. 159.

²Robert W. Richey, Planning for Teaching (McGraw-Hill Book Company, Inc., New York, 1963), p. 49.

of children, his attitudes toward them and his ability to work with them. An awareness of the need for more pre-training observation has resulted in a revision of the requirements in many institutions that offer student-teacher courses.

"A number of institutions are requiring students to observe many teaching-learning situations, beginning with the first year of college."¹

Current practice has been to arrange teachers-in-training to sit in classrooms to observe or to view through one-way glass panels. Since the presence of any additional adults in the classroom removes it from being a normal situation, professionals in our educational fields readily admit that classroom observing, either by person or by one-way glass is not adequate to provide sufficient and continuous exposure to classroom environment throughout the teacher training period. Because of the need for observational opportunities and the inadequacy of the present methods, closed-circuit television is being considered and used as an effective adjunct to help solve the problem. While closed-circuit television has its limitations, it is already one of the most efficient tools of communication devised by man. Education depends upon effective communication. We must make use of all the available tools.

Student observation of practice is an essential part of the professional curriculum. The observation of practice has presented some very real difficulties to the faculty members who would use such observation as one basis for organizing the professional curriculum. Closed-circuit television now makes it possible even for very large groups to

¹Ibid., p. 59.

observe practice together. Through such observation, students readily become familiar with the demands of teaching and, under guidance from the faculty, begin to apply understandings previously acquired. Through observation the students see individual differences and become aware of the need of guarding against conformity and stereotyping in teaching methods. Television appears to be particularly useful for teacher education courses, where student teachers are observing teaching demonstrations without intruding on the actual teaching situation. Remote viewing such as this also permits simultaneous analysis and discussion of the teaching process.¹ Observations may be directed toward many phases of classroom situations. There might be a definite time of identification of teaching processes, another time designated to observe physical characteristics and reactions, or the responses to certain activities. Any or all detailed and close-up demonstrations can be made more effectively through closed-circuit television with a live presentation than in a crowded classroom with added teachers in training observing.

What is learned by direct observation embraces far more than the principles of teaching. It includes an understanding of how children develop, singly and in groups.²

Everyone watching the screen in television is observing the same thing, whereas the direct classroom observers are seeing many different things

¹C. R. Carpenter, L. P. Greenhill, and others, An Investigation of Closed-Circuit Television for Teaching University Courses, Report No. 1 (University Park, Pa.: Pennsylvania State University, 1955) p. 77.

²James Bryant Conant, The Education of American Teachers (McGraw-Hill Book Company, Inc., New York, 1963), p. 161.

at the same moment. With closed-circuit television, the observers do not identify themselves as closely with the teacher whom they are observing. They are, therefore, apt to look upon the situation in a more detached manner. The real contribution of closed-circuit television is in making the observation of events possible that could not otherwise be observed at all.

Good observing is a systematic analysis, with the observer extracting every possible learning activity from the teaching situation. Planned observations are necessary to provide experiences that enable students to establish the relationship of current practices in education to the theories developed in class; to more adequately comprehend the importance of education; to appraise what is to be accomplished in translating theory into practice and to re-acquaint them with educational institutions. Everyone is guilty of making faulty observations, but it is necessary that every effort be made, through planning, that these be minimized. If an individual knows little about a particular subject, he usually does not "see too much" when he observes it.

Unless observation is systematic, little useful information will be obtained. You cannot observe the total environment at one time. In a classroom context, the total environment includes not only the pupils but also the teacher, the materials, and the physical structure. Without an underlying system, you tend to observe whatever attracts your attention strongly enough. With guides for observation formulated in advance, you can observe for specific purposes.¹

Before students are exposed to the periods of observation, they must understand the purposes involved. They must receive adequate guidance

¹Robert W. Richey, Planning For Teaching (McGraw-Hill Book Company, Inc., New York, 1963), p. 200.

and instruction from their college instructors. Observation should be objective; never general. It should be conducted for several months if it is to be significant.

Proper attitudes on the part of the observers are necessary if the teacher is to be convinced that the interests of the observers are impersonal and the teacher's privacy will be respected. A well planned program of observation through closed-circuit television could set the stage for real cooperation of all members of the teaching profession. Teachers and administrators are professionals; once they are convinced that a study is well planned and capable of contributing important knowledge, they will cooperate wholeheartedly.

Many college supervisors of student teachers experience difficulty in gathering satisfactory information on the work of student teachers. Closed-circuit television gives the college supervisor an opportunity to observe the student teacher in action. It is through this method of observation the instructor is able to gain the necessary information needed as a valid basis for better guidance of the student teacher. To be really of value, closed-circuit television must be thoroughly integrated into the teacher training program. This includes the area of child development and physical education courses as well as method courses. It is a channel for conveying whatever is put into it.

CLOSED CIRCUIT-TELEVISION PLANNING

Closed circuit television has many applications and can mean many different things. It may mean the linking of only two or three classrooms within a single school building, but it could also mean tying together the thousands of schools of an entire state so that a single program could be projected to all simultaneously.

In closed-circuit television the picture and sound are transmitted from cameras to receivers over cables or by microwave, permitting private reception of programs by those whose receivers are included in the circuit. This limits the viewing to those people who are especially concerned with the program.¹

Closed-circuit television is comparable in effect to an intercom or central sound system, except that it may provide both sound and pictures simultaneously. It is not subject to control by the Federal Communications Commission, provided that signals are not sent through space. The signals can be received only by receivers which are connected to the cable or microwave system. The cable system may be installed by a telephone company and used by the educational organization on a rental basis, or it may be installed, owned and operated by the educational institution itself. In some cases, the cable may be installed and operated by a community cable company.

At one time it was easy to explain closed-circuit television as being television which was available to viewers watching receivers connected by a common coaxial cable. Systems may now include coaxial cable outlets, a microwave link, and even a low-power transmitter. The result is that closed-circuit television is a system by which the television images are distributed for viewing to a

¹Donald G. Tarbet, Television and Our Schools (The Ronald Press Company, New York, 1961), p. 40.

selected audience.¹

The cost of originating a program will depend on the site and the facilities required. Any educational institution can tailor a system to fit its own program and its own pocketbook. Television for instructional purposes must be financed in the same manner that other methods of instruction are financed. We need to recognize that the type of professional education which we must have cannot be bought cheaply. "The consideration of costs in connection with closed-circuit television is complicated by the fact that each application must be custom made, tailored to fit the requirements of the user."²

The basic equipment for closed-circuit television consists of a camera which takes a picture of the subject, the control unit and the monitor. The selection of television receivers for use in the classrooms will be determined to a considerable extent by the size of the room.

Many new developments are taking place in the electronics field which should lead to the modification and improvement of television equipment. Cameras are being improved and are becoming much more adaptable to various telecasting situations. Lighting and audio facilities are being improved.³

There are some television cameras now on the market that are designed for completely unattended operation over long periods of time. For classroom audio pick-up for closed-circuit television, various patterns

¹Ibid., p. 195.

²Morris A. Mayers and Rodney D. Chipp, P. E., Closed Circuit TV System Planning (John F. Rider Publisher, Inc., New York, 1957), p. 231.

³Donald G. Tagbet, Television and Our Schools (The Ronald Press Company, New York, 1961), p. 253.

have been established. In some instances, microphones are suspended from the ceiling over specific groups participating, or they may be placed on desks in appropriate locations. One of the latest microphones to be developed is a transistor type, requiring no connections to the equipment.

Industrial TV cameras have evolved from heavy, cumbersome "chains" designed for TV broadcasting studios and requiring a crew of half-a-dozen or more technicians, to tiny self-contained units scarcely larger than a package of king-sized cigarettes, which can be controlled from a distance by one non-technical operator. The controls by which the viewer can direct the movements of the camera, its lenses and iris, and even acute mechanisms which he observes on the viewing screen, are recent developments which signal the maturity of the systems phase of closed-circuit television.¹

All television systems, from the simple "package" units to extremely complex facilities, contain three basic elements: (1) a camera or other image pickup device at the origination point; (2) a means of distributing the electrical signals to the intended receiving locations; and (3) appropriate equipment for converting the signals to reproduce the images for the viewer.

The use of college students for the operation of the equipment and to bring about the production minimizes the cost of the operation.

Permanent closed-circuit installations such as those in schools, hospitals, and advertising agencies, may be maintained in several ways: (a) sometimes there are full-time or part-time personnel who divide their time between operative and maintenance; (b) the user may have a service contract with a manufacturer's service company or a local service company; or (c) the user may call upon a local television service man in case of trouble.²

Provision should be made in the control room for telephone communication

¹Morris A. Mayers and Rodney D. Chipp, P. E., Closed Circuit TV System Planning (John F. Rider Publisher, Inc., New York, 1957), p. 7.

outside the studios--to various places where the program is being received.

A well planned program must be well organized. All participants must be made aware of the purposes, the responsibilities and the policies that are established. This will take orientation of those involved as well as a continued contact throughout the program. All participants will need many opportunities to make suggestions regarding areas to be improved. There will be a great need of understanding and harmonious attitudes.

A planning committee or council should be selected which will determine the general policies and do the over-all planning for a series. This group may then delegate some of the responsibility for specific programs to a subcommittee or a separate group. However, the general committee should be responsible for drawing up the general policy.¹

As in all programs, it is necessary to have someone who has been delegated the authority to assume the major responsibility of the program. This coordinator must be carefully chosen and must have a sincere understanding of the purposes of the program.

A coordinator for the series should be chosen who has had experience in the school system and who knows the resources and personnel of the school or schools. On the other hand he should have a basic understanding of television production and be in a position to work with the technical staff of the studio in planning the programs."²

¹Donald G. Tarbet, Television and Our Schools (The Ronald Press Company, New York, 1961), p. 158.

²Ibid.

PROGRAMS OF OBSERVATION THROUGH CLOSED-CIRCUIT
TELEVISION NOW IN PRACTICE

"Rapidly increasing numbers of students entering Brockport each year have made adequate observations by the students, prior to teaching, impossible."¹ Believing that there was no substitution for the needed observational activities, the New York College of Education at Brockport tried various methods of mass observations in order that psychology classes might be guided in observations of child behavior or methods classes might observe classrooms. Finding such observations unsatisfactory, it was decided to use closed-circuit television: "The use of CCTV has enabled sophomore students to experience eight to twelve observations each semester in various areas of learning in different campus-school grades."² Most of the observational activities last from twenty minutes to half an hour, giving the teacher time to discuss the lesson with the observers.

CCTV has several strengths and weaknesses, but after four years of working in the program we find that the strengths outweigh the weaknesses. The advantages and limitations are based upon observations of the college staff, the response of students to periodic questionnaires, and opinions of campus-school teachers and children.³

In discussing the advantages of the closed-circuit television observation program at Brockport, Miss Rench considers the close association

¹Hazel S. Rench, "Observing Teaching Via Closed-Circuit Television," *The Journal of Teacher Education*, Vol. XII, No. 1 (March, 1961), p. 39.

²Ibid.

³Ibid., p. 40.

of the college teacher, the campus-school teacher and the closed-circuit television staff of great importance. It is through their planning that the items to be observed are controlled to a greater degree than if it were a regular classroom observation. "The camera can bring closeup shots of children, their work, a picture, or the page of a book, thereby giving emphasis and clarity not possible in conventional classroom observations."¹ The second advantage discussed by Miss Rench is that the closed-circuit television has made observation possible to hundreds of students. Through surveys, the students have indicated that they prefer the guided observations for their initial experiences. "Campus-school teachers say that when these students come to the classroom they are ready to participate actively and plan effectively at an earlier date than were students who did not have CCTV observations."²

The advantages of closed-circuit television for observation of classes are many. The participants and consultants at the Albany Workshop reported the following: Closed-circuit television makes possible early group-guided observations of children in campus schools and other schools, both direct and by means of kinescope or some other form of television recording. These observations may be used in conjunction with introductory courses, courses in the psychological foundations (for studies of child development and individual behavior), in method courses for study of specific classroom techniques and situations, and for student teachers.

The use of television recordings will afford experience in observation to late afternoon, evening, and summer-session classes for undergraduate and graduate students and for the in-service training of teachers.

Because of the increased enrollment and expectation of further increase in enrollment in teacher-education programs there is a need for developing new and more efficient ways of giving future teachers experience in observing children and schools. Closed-

¹Ibid., p. 41.

²Ibid.

circuit television will help to meet this need.

By means of closed-circuit television there can be more student observations because students can observe in large groups and with no distraction to the class being observed.¹

Hunter College of the City of New York felt the need of using closed-circuit television in its program of teacher education and initiated its program in 1959. The purpose of the use of closed-circuit television was "three-fold--to provide more frequent, more selective, and more effective observation of children in school for teacher-education students in the college and to use television for improvement of teacher education and for improvement of measures of student-teaching performance."² The closed-circuit television system at Hunter College was installed by General Precision Laboratories. The three cameras were mounted on shelves in the classrooms and controlled by a technician in a room midway between the transmission center and the viewing classrooms. Two of these cameras had zoom lenses so that a close-up of any child or specific activity might be viewed. Among the experiences which the committee composed of representatives of the Hunter College Department of Education and of the Elementary School have felt to be valuable for college classes are the following:

- Observing children as learners.
- Seeing children as pupils in a school
- Observing reactions of children at different ages.
- Observing individual differences among children.
- Seeing what takes place in learning.
- Recognizing the role or roles of the teacher.

¹Florence B. Freedman, "Teacher Education By Closed-Circuit Television," *The Journal of Teacher Education*, Vol. X, No. 3 (September, 1959), p. 292.

²Ibid., p. 291

Seeing method as practical application of theory.
Observing physical-emotional-interpersonal relations among
children.

Relating classroom atmosphere to mental health.
Observing teacher-pupil relationships.¹

¹Ibid., p. 293.

A SUGGESTED PROGRAM OF CLOSED CIRCUIT TELEVISION
FOR OBSERVATIONAL PURPOSES

There is evidence of the close cooperation of the Kansas State University School of Education and the personnel of the Manhattan Public Schools. To continue this cooperation in planning and developing a program of observation through closed-circuit television, a definite understanding on the part of each participant would be the first, and no doubt the most important item of the program.

If the program is to be of greatest value, all elementary classrooms within the system should be equipped to be used as points of origination. When only one multi-purpose room is equipped the value of normal classroom environment is removed. Should limited buildings or classrooms be equipped, the program then becomes limited.

In transmitting the program from the point of origination to the point of presentation, either coaxial cable or microwave may be used.

Coaxial cable derives its name from its construction. Essentially it consists of a flexible tube (made of a good electrical conductor), with a solid wire inside which is insulated from the tube by a plastic sheath in such a manner as to give wire and tube a common axis--hence the name 'coaxial'.¹

The microwave relay is a system of radio transmission which derives its name from the fact that the wavelengths it utilizes are extremely short. By the use of specially designed antennas it focuses all of its power in a relatively narrow beam, much as the reflector and lens system of a spotlight will concentrate the bulk of its light output in a narrow path.²

¹Morris A. Mayers and Rodney D. Chipp, Closed-Circuit TV System Planning (John F. Rider, Publisher, Inc., New York), p. 106.

²Ibid., p. 109.

In some cases, there may be a combination of both coaxial cable and microwave relay used.

The mobile unit housing the transmission equipment would have an assigned location at each school for the purpose of having efficient and permanent cable connections. Careful planning would eliminate short periods of televising at each location.

The on-campus receiving room should be one designated for that purpose only. It should be centrally located, well ventilated and under continuous supervision. The number, size and location of the receiving sets would depend on the number of observers participating. To eliminate numerous sets, one large screen might be used; however, this is not recommended as the enlargement of the picture might remove the natural affects.

In order to present a more definite plan of observation through closed-circuit television, the writer has taken the liberty of developing a hypothetical schedule for an average day of observation. It is to be assumed that each of the eight Manhattan Elementary Schools, including the Kindergarten and Special Education Annex at Lee School are equipped to be involved with closed-circuit activities.

Through a well defined manual of instructions, all college instructors are aware that only those periods scheduled two weeks prior to the viewing will be considered for scheduling by the coordinator. If the program is to be successful, one of the most important duties of each person involved will be that he adhere to the schedules. It will have been emphasized that through careful planning and cooperation with co-workers, more opportunities for observing will be available. Most

requests will have been discussed either at staff meetings or with individual instructors to utilize the allotted observational time. A printed form to be used in requesting observational periods will have been made available to all those with authority to make such requests.

In accordance with the policies established for this program of observation, the viewing of any and all observations would be open to the administrative and supervisory personnel of the Manhattan Public Schools. Observers who were not members of a scheduled class would be requested to apply to the coordinator for permission to attend any viewing.

Tabulating the requests of the college instructors for an October Monday, the coordinator finds three requests for observing student teachers involved in teaching experiences in Building 6, two requests for ten o'clock classes to observe reading in the primary grades and one request for a three o'clock class to observe a Science lesson in the fifth or sixth grade. The coordinator also notes a special request for a physical education demonstration in the intermediate grades at two o'clock, to be observed any day of the week and a nine o'clock observation of a primary grade for a child development class.

Since the tabulation indicates that Building 6 is the only specified building, the coordinator confers with the principal of that building who in turn checks the previously scheduled activities, contacts the teachers who will be involved and reports the results to the coordinator. The coordinator then notifies the instructors of the results, whether they be positive or negative. An opportunity is given the instructors to make a request for rescheduling any negative

results.

All scheduled activities for each day are filed with each adult who is involved. Since this particular Monday is scheduled for Building 6, the schedule would be placed on special bulletin boards in order that a visitor might be aware of the activities, thus avoiding any embarrassment on the part of a patron who might make a hurried and ungroomed appearance, only to find herself "on camera". Each staff member, including special teachers, custodians and cooks, would be provided with a copy of the schedule. Copies of all schedules would always be filed with the administrative and supervisory personnel.

The final draft of this particular Monday would appear as follows:

9:00 - 9:30 - Room 2, Grade 1, Miss White - Child Development Class
 9:30 - 10:00 - Room 2, Grade 1, Miss Gray (student teacher) Instructor C
 10:00 - 10:30 - Room 3, Grade 2, Miss Brown - Elementary Reading Classes (2)
 10:30 - 11:00 - Room 5, Grade 5, Miss Black (student teacher) Instructor A
 11:00 - 11:30 - Room 1, Grade 1, Miss Green (student teacher) Instructor B
 2:00 - 2:40 - Gym, Grade 4, Miss Tan - Physical Education Class

Since an office type receiving room has been provided for viewing purposes for instructors, there is sufficient time allowed between viewing periods of classes to permit follow-up discussions of the class observed.

It will be noted that the request for the three o'clock Science class to observe a fifth or sixth grade lesson was a negative request due to the fact that choir for those grades is regularly scheduled in Building 6 for that time on all Mondays.

Assuming that a mobile unit equipped with the transmission is the method being used to transmit the microwave, it would then be taken

to the building from which the next day's scheduled programs would be televised. There is a possibility that requests might be for a continuation of observation at one building for several days in order that a developmental program might be observed.

Although this program of observation would be identified with the School of Education, it is to be noted that requests from other areas would also be scheduled when merit had been established. This might well include the Departments of Psychology, Music, Speech, Art, Physical Education and Family and Child Development.

The scheduling of the programs would be a tremendous task for the coordinator, but the writer feels it would not be as large a task as that of trying to operate a continuous, cooperative and meaningful program. Due to the number of adult personalities that would be involved there would be great need for emphasis on the purposes of such a program.

Because of the existence of such programs of observation through closed-circuit television, it is not impossible to have one in the Manhattan area. It is a program that will require careful planning, close cooperation, interested participants, a professional attitude - and money. Our student teachers of today are deserving of all of this if they are to help the children of tomorrow mold the future of our country.

REFERENCES

- Asheim, Lester. Educational Television: The Next Ten Years. The Institute for Communication Research, Stanford University, 1962. 374 pp.
- Barnes, John B. Educational Research for Classroom Teachers. New York: G. P. Putnam's Sons, 1960. 225 pp.
- Brownell, William A. A Critique of Research on Learning and on Instruction in the School. Fiftieth Yearbook of the National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1951. 312 pp.
- Conant, James Bryant. The Education of American Teachers. New York: McGraw-Hill Book Company, Inc., 1963. 264 pp.
- Costello, Lawrence F., and George N. Gordon. Teach With Television. New York: Hastings House Publishers, 1961. 176 pp.
- Del Popolo, Joseph A. "Experiences A Student Teacher Should Have," Journal of Teacher Education, 11:75, March, 1960.
- Eddy, William C. Television The Eyes of Tomorrow. New York: Prentice Hall, Inc., 1945. 319 pp.
- Freedman, Florence B. "Teacher Education By Closed-Circuit Television," Journal of Teacher Education, 10:291-293, September, 1959.
- Harrison, Raymond H., and Lawrence E. Gowin. The Elementary Teacher In Action. San Francisco: Wadsworth Publishing Company, Inc., 1959. 283 pp.
- Hayers, Morris A., and Rodney D. Chipp. Closed-Circuit Television System Planning. New York: John F. Rider Publisher, Inc., 1957. 242 pp.
- Medley, Donald M., and Harold E. Mitzel. "Measuring Classroom Behavior By Systematic Observation," Handbook of Research on Teaching. American Educational Research Association. Edited by N. L. Gage. Chicago: Rand McNally and Company, 1963. 1172 pp.
- Michaelis, John U., and Paul R. Grim. The Student Teacher in the Elementary School. New York: Prentice-Hall, Inc., 1954. 418 pp.
- Rench, Hazel S. "Observing Teaching Via Closed-Circuit Television," Journal of Teacher Education, 12:39-42, March, 1961.
- Richey, Robert W. Planning For Teaching. New York: McGraw-Hill Book Company, Inc., 1963. 544 pp.
- Rumford, Herbert P. "An Experiment in Teaching Elementary School Methods Via Closed-Circuit Television," Journal of Educational Research, 56:139, November, 1962.

- Smith, Mary Howard (ed.). Using Television In The Classroom. New York: McGraw-Hill Book Company, Inc., 1961. 118 pp.
- Tarbet, Donald G. Television and Our Schools. New York: The Ronald Press Company, 1961. 258 pp.
- Van Dalen, Deobold B. Understanding Educational Research. New York: McGraw-Hill Book Company, Inc., 1962. 419 pp.
- Weiss, David. "Closed-Circuit Television and Teacher Education," The Educational Forum, 26:229-231, January, 1962.
- Zwerykin, Veadimir K., B. G. Ranberg and L. E. Flery. Television In Science And Industry. New York: John Wiley and Sons, Inc., 1958. 207 pp.

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AN ABSTRACT OF A REPORT

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The purposes of this study were to identify the needs, values and methods of observation for the pre-training period of student teachers and to present a suggested program of observation through closed-circuit television. In studying texts pertaining to the student teacher, the writer noted the emphasis placed on the observation of teachers in actual teaching experiences by those in preparation for teaching as well as the observation of children for growth, developmental and behavior patterns.

Each program of observation through closed-circuit television which the writer was able to identify through research proved to be unique in its own construction and organization. Since many of the active programs involved the campus schools, the planning, organization and expense of such programs could in no way compare with the suggested program the writer has attempted to present. It had been the writer's original plan to submit an estimated cost of such a program, but it was soon apparent that it would not be advisable to consider an attempt to determine the expense of any part of the program. Because of the constant changes and improvements being made in the television field much of the equipment that would have been included in the plans at the time of the study would be obsolete if and when such a study were to be established. At the present time there are commercial companies that are equipped to provide all materials necessary for such a program on a rental basis.

While the financing of such a program is of great importance, the information gathered reinforces the personal feeling of the writer that the organization and understanding of such a program surpasses any

other phase if it is to be beneficial to the teacher education program.

Because of the interest, the pride and the faith the writer has in the teaching profession, this study has been based on a personal as well as a professional desire for the continuation of the improvement of the teacher education program. The writer has become more enthusiastic regarding the possibility of such a program and feels that with the continued growth of the School of Education at Kansas State University a program of observation through closed-circuit television will become a reality in the near future.