

A Prospectus  
for  
The State University  
at  
Boca Raton, Florida  
on  
Facilities and Space  
Requirements for the  
Use of <sup>the Museum</sup> ~~the~~ <sup>Media</sup> ~~Media~~  
in  
Educational Programs

The Report and Plans  
for  
The Architects  
of  
The Board of Control  
Tallahassee, Florida

July 19, 1960

## Introduction

Tentative plans for the State University at Boca Raton include requirements for using all media or carriers of information both extensively and appropriately. These media which include books, journals, printed materials, television, radio, motion pictures, <sup>(not included here)</sup> ~~teaching machines, learning laboratory equipment,~~ graphics, and photography, audio tapes and video tapes <sup>will</sup> ~~shall~~ constitute essential parts of the <sup>complete</sup> Learning Resource Center.

Those who will use the facilities are resident and commuting students at all academic levels, <sup>with special focus on upper level general education and general graduate training,</sup> as well as people of the area who are involved in continuing education <sup>programs</sup>. The junior colleges which are affiliated with the University <sup>will</sup> ~~may~~ <sup>reciprocally</sup> share in the use of the resources of the Center in ways determined to be mutually advantageous. The University will also exchange <sup>by films, tapes and electronic means</sup> instructional programs with other State and National organizations and services.

to be

## Educational Use of the Media

Specific educational <sup>and should</sup> <sup>can</sup> be defined for all kinds of <sup>materials,</sup> facilities and systems whether they are employed separately or in combination. Some of the principal uses are <sup>expected to be</sup> the following:

1. Recording and organizing high quality instructional programs.

2. Storing <sup>or remote</sup> of programs for distant and future use.

3. Providing means for pre-testing and improving program quality and <sup>their</sup> appropriateness for students.

4. Repeating and presenting instruction and learning opportunities where and when necessary to advance <sup>the</sup> learning <sup>of students</sup> to <sup>achieve</sup> defined levels <sup>(Criteria)</sup> of testable academic proficiency.

5. Making available instructional resources from other regions and institutions or from outside the <sup>normal</sup> reach of ~~the~~ a University.

6. Increasing the scope, strength, quality and duration of organized stimulation for the learning of students.

7. Providing the University with the means of contributing to the educational and intellectual

resources of the State, Nation  
and Culture as has been done by printing  
for <sup>centuries</sup>.  
8. Providing students with  
interests and learning  
~~habits~~ for the continuing  
uses of the <sup>newer</sup> modern  
media of communication  
for intellectual <sup>their</sup> advancement.

9. Providing a means of  
sharing the resources  
of the University with other  
<sup>colleges and universities and</sup>  
the surrounding communities.

10. Contributing to the  
development of the arts and  
sciences of teaching and  
the advancement of skills  
and abilities <sup>of students</sup> for <sup>effective</sup> learning.

11. Providing a <sup>practical</sup> means  
for extending the influence,  
effects and opportunities for  
various kinds of learning  
to large numbers of students.

12. Providing public visibility  
for the developing University.

13. Assessing and evaluating  
educational gains.

## Source of Programs

Universities of the future will need to share and exchange programs of instructional materials of all kinds to an increasing extent. Two centuries this has been done through the media of print, ~~and journals~~. Developments both in other mass media and in subject matter areas like physics, chemistry, biology and mathematics indicate future possibilities for broadening the cooperative efforts of institutions <sup>in sharing & exchanging instructional materials</sup>. Therefore, it would be a serious error for a new university to plan to be self-sufficient in providing all of the instruction ~~and~~ all those learning resources which it will need.

The University may have for its use programs of instruction from the following sources:

1. Those produced in its own laboratories by its own faculty members, <sup>visiting professors</sup> students and specialists.

2. Those received from other institutions of higher education in the State and production agencies.

2. Programs from universities in other states or countries and from national or international producing and distributing organizations as those <sup>develop appropriate services</sup>. The programs may be carried by printed materials, audio or video tapes, sound films, graphics and photographs (as ~~media~~ <sup>media</sup> not yet developed (e.g. thermoplastic materials).

The ~~clearing~~ <sup>clearing</sup> of these considerations on this project is to call attention to the general needs for facilities and space in the Learning Resources Center of the University which provide the means of handling effectively a <sup>very</sup> wide range of kinds and ~~of~~ large volumes of educational <sup>and management</sup> materials. The handling <sup>will</sup> include production, classification and storage; finding, ordering, receiving; distribution especially to points of use in the University but also to cooperating junior colleges and <sup>more</sup> <sup>distant</sup> <sup>points</sup> to the community as well as

It should be clearly recognized that the production, distribution and use of programs carried by the newer media parallel in general and in many

particulars the same operations  
for printed materials <sup>and leaflets</sup>. Therefore,  
Advantage should be taken  
of the possibilities ~~for~~ closely  
Coordinating all operations of  
~~with~~ the newer media  
with proven methods and  
~~procedures~~ <sup>procedures</sup> of the library  
sciences.

## Phases and Schedules of Development for the Newer Media

Clearly it is necessary to select what facilities and activities should be provided from the very beginning and to schedule their expansion and development <sup>fittingly with the growing University</sup>. Entirely <sup>of the required dimensions</sup> adequate and sufficient space, should be planned and built for the library, ~~and~~ the newer media, <sup>and other activities</sup> in the Learning Resource Center. However, considerable amounts of this space should be assigned temporarily to serve other functions until these can be moved to other buildings. For example some of the proposed production laboratories and studios can be used for classrooms or work areas until <sup>other</sup> Academic Centers are built and the original space is needed <sup>for the libraries and newer</sup> for expansion for <sup>media</sup> uses.

The following developmental phases are proposed:

1. Provide space and facilities for all types of learning program development and



production but with initial limitations and possibilities for expansion to a scope appropriate to the Computer University

2. Provide the needed originating and distribution facilities, using cable systems, for both television and radio within the Learning Resource Center and ~~possible~~ <sup>with</sup> ~~as needed~~ <sup>from the Center</sup> to all work <sup>areas</sup> centers, seminars and classrooms, dormitory areas and students' rooms. The general concept is to provide the necessary means of channelling programs to points of use wherever and whenever they may be effectively and justifiably used.

3. Next in order, and work may be begun on this phase in the <sup>very</sup> near future, a broadcast facility of one or two channels should be provided for both radio and television.

4. Connections should be established <sup>reciprocally</sup> with the Educational Television and Educational Radio networks of Florida either by means of tape exchanges, by electronic means or by both.

5. Linguage should be established <sup>at first</sup> by tapes and electronic means <sup>then later</sup> with the junior colleges affiliated with the University.

### Space and Facilities.

Reasonable estimates have been made of the <sup>net</sup> needs for space and facilities which will be ~~needed~~ <sup>required</sup> by the University when it is developed to full capacity. However, the space can be varied in terms of <sup>the</sup> functions it serves during the period of expansion. Some specialized space will need to be built and committed from the beginning.

The following is a list <sup>part of the</sup> of space needs and constitutes a building program for the Learning Resources Center. These estimates are <sup>believed</sup> urgently needed by the architects and have been prepared with considerable haste:

# I Communications Training Laboratory

1. Studios	1,200 sq. ft.
2. Control Room	2,500
3. Observation, Conference and Seminar Room	400
4. Projection & Graphics	200
5. Audio & Recording	150
6. Video Recording	1,500
7. Film Projection, Editing viewing & analysis	<u>1,000</u>
Sub-Total	<u>                    </u>

# II Instructional Program Development and Professional Production.

1. Program Development and Research  
Areas. Directly related library.  
Program testing. 20 areas,  
offices & cubicals approx  
200 sq ft each. 4000
2. Main Program Production  
Area. Multipurpose production  
Area. TV, Motion Picture. A  
Combination teaching laboratory  
and "Studio" area new  
in conception & design.  
Include science lecture-demon-  
stration basic facilities and  
equipment. Possibly  
revolving set platform.  
60 ft x 75 x 24 4,500

3. Auxiliary Production Area.

Perhaps storage area between main production areas arranged for sound control.

60 x 40 x 24 ft 2,400

4. Control Area for

above. 12' ft. ceiling height (note: maintain larger "studio" height at 24' but use adjacent space as two floors 12' approx for Control, observation + other auxiliary rooms 2,500

III Instructional Materials <sup>Production</sup> Area

1. Area to be used for

graphics, artists, writers  
Planners, <sup>scientific set-ups, models</sup> etc.

4,000

IV Originating Laboratories - Studios

Five of these <sup>units</sup> connected and related to Control Center.

60 x 40 x 24 x (5) 9,600

Provide for multiple simultaneous origination of telecasts, tape recordings, connected with closed circuit distribution cable in University + possibly to junior colleges; film

production uses,  
rehearsal areas, etc.

## V Photographic Laboratories and Studios.

Used for production of  
photographs, slides, ~~tapes~~  
film strips & loops &  
motion picture editing  
& sound recording -

1. Two areas 40 x 60 x 24

4,800

2. Editing rooms (10)

8 x 10 x (12)

800

3. "Dark rooms" & develop-  
ment, printing rooms  
10 x 20 x (12) x 4

800

## VI Instructional Material Exchange Area

1. Use: Receiving & Shipping,  
Interim Storage, Classification, 2,000

2. Inventory of supplies -

Films, tapes, paper, etc. 1,000

3. University Photographs,  
TV and Radio Equipment  
Pool

1,000

VII Administrative & Coordinating  
Office -

1. Office for 25-30 people
2. Secretarial Pool
3. Secretarial Equipment area  
Mimesography, duplicating,  
Tubs, storage of supplies 5.000

VIII Engineering Maintenance & Repair  
Electronic & related shops,  
instrumentation & test  
benches, stocks of tubes  
and small parts. 1.500

✓ IX Radio Studios, & Audio Record-  
ing -  
"Broadcasting" & Cable

1. Two studios - each 1,000 2.000
2. Master radio Control Area # 800  
(May need to be divided)

Include equipment for  
remote (wire) pick-up of  
lectures, concerts, symposia, etc  
relay broadcasts and  
for tape recording from  
places where these will be  
held on campus.

3. News and University Communi-  
cations area - Student operated - 500

X Broadcast Transmitter area  
for radio 500

XI Equipment Storage TV, Radio,  
Teaching Machines & Receiver  
Repair & Maintenance 1.000

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Those who will use the facilities are resident and commuting students at all academic levels, with special focus on upper level general education and general graduate training, as well as people of the area who are involved in continuing education programs. The junior colleges which are to be affiliated with the university will share reciprocally in the use of the resources of the center in ways determined to be mutually advantageous. The university will also exchange instructional programs by films, tapes, and electronic means with other State and National organizations and services.

## Educational Uses of the Media

Specific educational uses can and should be defined for all kinds of materials, facilities, and systems whether they are employed separately or in combination. Some of the principal uses are expected to be the following:

1. Organizing and recording high quality instructional programs.
2. Storing of programs for distant or remote and future use.
3. Providing means for pre-testing and improving program quality and their appropriateness for students.



4. Repeating and presenting instruction and learning opportunities where and when necessary to advance the learning of students to achieve defined levels (criteria) of testable academic proficiency.
5. Making available instructional resources from other regions and institutions or from outside the normal reaches of a university.
6. Increasing the scope, strength, quality, and duration of organized stimulation for the learning of students.
7. Providing the university with the means of contributing to the educational and intellectual resources of the State, Nation, and culture as has been done by printing for centuries.
8. Providing students with interests and learning habits for the continuing uses of the newer modern media of communications for their intellectual advancement.
9. Providing a means of sharing the resources of the university with other colleges and universities and the surrounding communities.
10. Contributing to the development of the arts and sciences of teaching and the advancement of skills and abilities of students for effective learning.
11. Providing a practical means for extending the influences, effects, and opportunities for varied kinds of learning to large numbers of students.
12. Providing public visibility for the developing university.
13. Assessing and evaluating educational gains.

### Sources of Programs

Universities of the future will need to share and exchange programs of instructional materials of all kinds to an increasing extent. For centuries this has been done through the media of print. Developments both in other mass media and in subject matter areas like physics, chemistry, biology, and mathematics indicate future possibilities for broadening the cooperative efforts of institutions in sharing and exchanging instructional materials. Therefore, it would be a serious error for a new university to plan to be self-sufficient in providing all of the instruction and all those learning resources which it will need.

The university may have for its use programs of instruction from the following sources:

1. Those produced in its own laboratories by its own faculty members, visiting professors, students, and specialists.
2. Those received from other institutions of higher education in the State and production agencies.
3. Programs from universities in other states or countries and from National or international producing and distributing organizations as those develop appropriate services.

The programs may be carried by printed materials, audio or video tapes, sound films, graphics, and photographs or media not yet developed (e.g., thermoplastic materials).

The bearing of these considerations on this prospectus is to call attention to the general needs for facilities and space in the Learning Resources Center of the university which provide the means of handling effectively a very wide range of kinds and large volumes of educational materials. The handling and management

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will include production, classification and storage; finding, ordering, receiving; distribution, especially to points of use in the university, but also to cooperating junior colleges and to the community as well as more distant points.

It should be clearly recognized that the production, distribution, and use of programs carried by the newer media parallel in general and in many particulars the same operations for printed materials and books. Therefore, advantage should be taken of the possibilities for closely coordinating all operations of the newer media with proven methods and procedures of the library sciences.

#### Phases and Schedules of Development for the Newer Media

Clearly it is necessary to select what facilities and activities should be provided from the very beginning and to schedule their expansion and development fittingly with the growing university. Entirely adequate and sufficient space of the required dimensions should be planned and built for the library, the newer media, and other activities in the Learning Resources Center. However, considerable amounts of this space should be assigned temporarily to serve other functions until these can be moved to other buildings. For example, some of the proposed production laboratories and studios can be used for classrooms or work areas until other academic centers are built and the original space is needed for expansion for the libraries and newer media uses.

The following developmental phases are proposed:

1. Provide space and facilities for all types of learning program development and production but with initial limitations and possibilities for expansion to a scope appropriate to the completed university.

2. Provide the needed originating and distribution facilities, using cable systems, for both television and radio within the Learning Resources Center and with connections as needed from the Center to all work areas, seminar and classrooms, dormitory areas and students' rooms. The general concept is to provide the necessary means of channelling programs to points of use wherever and whenever they may be effectively and justifiably used.
3. Next in order, and work may be begun on this phase in the very near future, a broadcast facility of one or two channels should be provided for both radio and television.
4. Connections should be established reciprocally with the Educational Television and Educational Radio Networks of Florida either by means of tape exchanges, by electronic means, or by both.
5. Linkages should be established at first by tapes and then later by electronic means with the junior colleges affiliated with the university.

#### Space and Facilities

Reasonable estimates have been made of the net needs for space and facilities which will be required by the university when it is developed to full capacity. However, the space can be varied in terms of the functions it serves during the period of expansion. Some specialized space will need to be built and committed from the beginning.

The following is a list of space needs and constitutes part of the building program for the Learning Resources Center. These

estimates are believed urgently needed by the architects and hence have been prepared with considerable haste:

I. Communications Training Laboratory.

	<u>Sq.Ft.</u>	
1. Studio	1,200	
2. Control Room	2,500	
3. Observation, Conference, and Seminar Room	400	
4. Projection and Graphics	200	
5. Audio Recording	150	
6. Video Recording	1,500	
7. Film Projection, Editing, Viewing, and Analysis	<u>1,000</u>	
Sub-total		6,950

II. Instructional Program Development and Professional Production.

1. Program development and research areas directly related to library. Program testing. 20 areas, offices & cubicles approx. 200 sq.ft. each.	4,000	
2. Main program production area. Multi-purpose production area-- TV, Motion Picture. A combination teaching laboratory and "studio" area new in conception and design. Include science lecture-demonstration basic facilities and equipment. Possibly revolving set platform. 60 ft. x 75 x 24	4,500	
3. Auxiliary professional production area. Perhaps storage area between main production areas arranged for sound control. 60 x 40 x 24 ft.	2,400	
4. Central area for above. 12 ft. ceiling height (Note: Maintain larger "studio" height at 24 ft. but use adjacent spaces as two floors 12 ft. approximately for controls, observation and other auxiliary rooms.)	<u>2,500</u>	
Sub-total		13,400

III.	<u>Instructional Materials Production Area.</u> Area to be used for graphics, artists, writers, planners, scientific set-ups models, etc.	4,000
IV.	<u>Originating Laboratories-Studios.</u> Five of these units connected and related to central control center. 60 x 40 x 24 x (5) (Provide for multiple simultaneous origination of telecasts, tape recordings, connected with closed circuit distribu- tion cable in university and possibly to junior colleges; film production uses rehearsal areas, etc.)	9,600
V.	<u>Photographic Laboratories and Studios.</u> Used for production of photographs, slides, film strips and loops, and motion picture editing and sound recording.	
	1. Two areas 40 x 60 x 24	4,800
	2. Editing rooms (10)-8 x 10 x (12)	800
	3. "Dark rooms" & development, printing rooms 10 x 20 x (12) x 4	<u>800</u>
	Sub-total	6,400
VI.	<u>Instructional Materials Exchange Areas.</u>	
	1. Uses: Receiving and shipping, interim storage, classification	2,000
	2. Inventory of supplies - films, tapes, papers, etc.	1,000
	3. University Photographic, TV, and Radio Equipment Pool	<u>1,000</u>
	Sub-total	4,000
VII.	<u>Administrative and Coordinating Offices</u>	
	1. Offices for 25-30 people	
	2. Secretarial Pool	
	3. Secretarial Equipment area - mimeographing, duplicating, files, storage of supplies	5,000

VIII.	<u>Engineering Maintenance and Repair.</u> Electronic and related shops, instrumentation and test benches, stocks of tubes and small parts.	1,500
IX.	<u>Radio Studios, "Broadcasting" &amp; Cable, Audio Recording.</u>	
1.	Two studios - each 1,000	2,000
2.	Master radio control area (May need to be divided) Include equipment for remote (wire) pick-up of lectures, con- certs, symposia, etc., for relay broadcasts and tape recording from places where these will be held on campus.	800
3.	News and university communications area - student operated	<u>500</u>
	Sub-total	3,300
X.	<u>Broadcast Transmitter Area for Radio.</u>	500
IX.	<u>Equipment Storage, TV, Radio, Teaching Machine and Receiver, Repairs and Maintenance.</u>	<u>1,000</u>
	Total	55,650

# FLORIDA EDUCATIONAL TELEVISION COMMISSION

Room 112, Knott Building — Telephone: 3-5089

TALLAHASSEE, FLORIDA

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JAMES ETHERIDGE, JR.  
Executive Secretary

May 5, 1961

Dr. C. R. Carpenter  
405 Old Main  
University Park, Pennsylvania

Dear Dr. Carpenter:

Our consulting engineer, Mr. W. J. Kessler, tells me of your kind interest in ETV developments in Florida. I thought you were on our mailing list -- and you are now.

The enclosed material indicates something of our progress and long-range plans. It seems clear that Florida has established television as an important instrument of education. The 1957 Legislature appropriated \$600,000 for this purpose, the 1959 Legislature \$720,000, and it appears that the 1961 Legislature will provide approximately \$600,000.

The above figures are appropriations to the Commission and do not include other outlays directly to institutions.

I regret that I was unable to attend the Boca Raton planning conference in Miami. We recall with great appreciation your fine contribution to one of our early ETV conferences at Gainesville.

Thank you very much. We would like to hear from you.

Sincerely,

James Etheridge, Jr.  
Executive Secretary

cc: W.J. Kessler  
Dr. A. J. Brumbaugh ✓  
Dr. Myron Blee

JE:ajd

COPY



A COMMENTARY ON TELEVISION RESEARCH  
1948 - 1960

C. R. Carpenter, Professor of Psychology  
The Division of Academic Research and  
Services  
The Pennsylvania State University  
University Park, Pennsylvania

The 1959 Ride Lecture of Cambridge University was given by C. P. Snow, an eminent physicist, administrator and novelist. The published lecture is entitled The Two Cultures and the Scientific Revolution. Once again Snow has attempted to increase the understanding and working relationships between science and technology on the one hand and the liberal arts on the other.

Snow said "---the great edifice of modern science goes up, and the majority of the cleverest people in the western world have about as much insight into it as their neolithic ancestors would have had. "

This sharp reference is to liberal artists, the keepers and transmitters of great intellectual tradition, who deplore the literary ignorance of scientists while remaining contentedly uninformed of the scientific and engineering developments which are producing revolutions in their enveloping cultures and in the world order.

Snow was concerned also in this lecture with the limited maturity of understanding of the arts and humanities by scientists and engineers who in our materialistically oriented society are assuming increasingly important roles in making the basic decisions which determine the courses of societies and the destinies of nations.

Snow contends, "It isn't that they're not interested in psychological or moral or social life . . . It is much more that the whole literature of traditional culture doesn't seem to them relevant to those interests. They are, of course, dead wrong. As a result, their imaginative understanding is much less than it could be. They are self-impoverished. "

Arguments are presented in The Two Cultures and the Scientific Revolution for bridging the abyss in understanding between the scientific-technological and the liberal arts domains of knowledge and dominions of people. Snow proposes that this is another very urgent task of education.

The deliberations and discussions of this conference, as well as the extensive research efforts exemplified by those of the United States Office of Education which are authorized by the National Defense Education Act, are staged between two systems of forces or conditions which remain to be integrated and brought into focus for accomplishing necessary educational objectives. The issues and conflicts in this area are similar in character and complexity to those described by Snow between the physical sciences and technology and the arts and humanities. Indeed, the adjustments now needed between "liberal" education and new technologies of communications may well be parts of the more general and basic cultural conflicts defined by C. P. Snow.

Educators, in the majority, have attitudes, sentiments and values which are more similar to the liberal artists than the scientists-engineers. Therefore, the emerging technologies for education remain to be understood, appreciated, accepted and used.

This conference has been planned for, among other objectives, to assess developments and evaluate the results of research on the "newer" media of communications, to encourage better research and to assess the educational utility of results.

It should be observed that these "new" media are the relatively recent products of discoveries and developments in chemistry, physics, electronics and mechanics, or in general terms, advances in the technologies of communications and information processing. This great edifice of modern communication's technologies, to paraphrase Snow, goes up and the majority of cleverest people in the western world (educators) have little insight and understanding of the significance and utility of this structure for education. Lacking the necessary insight and understanding they permit and encourage the building of commercial television networks, three layers deep, which span the continent. Similarly they allow our culture to be saturated with the luxury uses of films and tapes. They use these vast communication resources to expand markets, "to move goods", to provide entertainment and to inform only mildly the vast publics who, it is said, must be served with what they want. For the same purposes they use radio, and regardless of its potentials for language instruction, for extending education to the millions of all ages, and for the elevation of taste for music and drama, they relegate it largely to secondary roles. Furthermore, radio is displaced by television which is expensively congruent with our "affluent society".

To conclude this introduction, consider the following questions: Why do we use in our great highway construction programs and transportation the very latest proven technical developments and constantly press for new and improved engines to move earth and move over the land? Why do we impatiently employ the very latest scientific and engineering inventions in the art of flight, in the crafts of armament and in the explorations of space, or even create urgent needs that must be satisfied by new inventions? Why do we move at a snail's pace to incorporate and integrate the available instrumentation for learning into the main tent of the educational systems and operations of the nation? Finally, why should we not formulate demands and requirements in education which will challenge the creative inventive talents of engineers and architects to develop improved instrumentation and optimum environments for learning? These resources are urgently needed to accomplish valid educational objectives and national purposes.

The age of television's use in education and training is about ten, or at most, twelve years. Like so many innovations and improvements in instruction, the first experiments and applications were undertaken in the military departments, by the Office of Naval Research at the Special Devices Center, by the Department of the Army at Fort Gordon, and by the Air Force using elaborate mobile units. It should be remarked also that the first uses of television for instructional purposes included an emphasis on research and development, an emphasis which has continued as civilian educators slowly grasped the potential significance and possible utility of television in public schools, colleges, universities and in adult education. This emphasis on television research, especially when television has been used in formal education, has led to the possible conclusion that more dependable research evidence has been accumulated on instructional television than on any other comparable educational innovation. There are available about forty substantive reports on fairly well conducted research projects and programs.

What purposes or functions has research on television served? Essentially this research has been conducted to answer two practical questions. The first of these was, "Can television be used as an instrument of training and education to help meet emergencies should they arise?"

The general task order of the Office of Naval Research, Special Devices Center's extensive mass media research program, including sound motion pictures, radio and television was worded to reflect this emergency purpose. The task order read, in part, "- - to conduct research on the mass media to determine their potentialities for training large numbers of men to high levels of proficiency and performance in the shortest possible time." Even in 1948 when this program was initiated,

and before the development of intercontinental missiles, the sudden need for defensive action, the criticality of time, the need for high level training in complex tasks of large numbers of men were visualized. A reasonable and practical question was asked: how and to what extent can the mass media be employed as one means of meeting such possible emergencies?

The second purpose for which television research has been done both in military and civilian education was to learn how television could be used to compensate for deficiencies and limitations in the training or educational resources and organizations. In case of a military emergency, strategists knew from the experience of two wars that top priorities could not be expected for instructor personnel and instructional material; therefore shortages of both in an emergency for training could be predicted. Likewise, in civilian education during the mid 1950's it became clear that shortages could be anticipated in teachers, buildings, and facilities. Therefore, another practical question was asked of developmental research: how can television be developed, adapted and used as a means of compensating for expected inadequacies of personnel and other resources for education?

The broad and liberally administered research programs in the mass media sponsored by the military services during the late 1940's and early 1950's, declined and became strictly specified project work with limited and immediate practical utility. It is interesting to observe that military training during the Korean conflict was conducted along conventional lines. The thin new veneer of information about the potentials of the mass media and the technological developments in television was little used.

In 1953 and 1954 a new cycle of television research and development was begun. The instigators and sponsors of this resurgence were the administrators of the Fund for the Advancement of Education which had been established by the Ford Foundation. In rapid succession this Fund approved and supported a series of research projects on instructional television. In contrast to the sister Fund for Adult Education which so importantly supported educational broadcast television and educational stations on the basis of faith and conviction borne of experience, the Fund for the Advancement of Education reflected in the beginning the critical tough-mindedness of Eurich and Weiss and the humanist caution of Faust. These men in turn reflected the skepticism of educators toward mechanization of teaching. Substantive evidence was required for their visions and impending decisions which involved great risk. Experiments were launched at the New Jersey State Teachers College in Montclair, Penn State, San Francisco, Chicago, Miami University, New York University, and in other localities. After the results of these projects were observed and began to be reported, the extensive public school project in Washington County,

Hagerstown, Maryland, was staged with joint industry and foundation support.

Once again the questions that these projects were designed to answer were practical questions and they parallel in many respects the questions asked earlier by forward looking military planners responsible for training activities and programs.

The questions asked and the answers given by research were important for two reasons: First, the questions determined to a large extent the kinds of research that were to be done, and therefore the kinds of evidence that were collected. Second, the evidence, in turn, influenced the decisions of the officers of the Fund for the Advancement of Education to launch cooperatively three large scale projects in instructional television all of which were of national significance.

The first of these was the National Program in the Use of Television in the Public Schools. This nation-wide project involved during its first year 40,000 students and more than 100 public school systems. This project which was staged on a grand scale sought to evaluate the effects of team teaching, with selected TV teachers, and the utilization of large available spaces for classrooms.

The second project was the well known Continental Classroom series which has served about 270,000 persons in the first Physics Course, and about 500,000 in the second course in Chemistry. This fall Modern Algebra will be added to the series. This bold adventure has involved the cooperation of a national TV network, a foundation, industries and hundreds of educational institutions.

It would appear that the Continental Classroom marks the boundary line between exploratory research and full scale broad scope application of television in education.

The third imaginative development was the Midwest Airborne Instructional Television Project which is an air-to-ground transmission system. The plane equipped with video tape machines, suitable transmission equipment and recorded course materials will circle at 22,000 feet and will have eventually the capability of transmitting six instructional programs simultaneously. The telecasts reach all or parts of six states or an estimated potential population of 5,000,000 public school pupils and college students. Like the Continental Classroom series, Airborne is predominately an operational development which may be a long step upward toward using communication satellites of the Echo type for distributing information and instruction over large geographical

areas to within the grasp of very large populations of people who want and need to learn.

This review would not be complete without citing television projects conducted to explore the wide ranges of television applications. The Chicago Junior College tested open circuit television as a means of providing most of the freshman and sophomore curricula to students in their home localities. In Oregon four colleges and universities have been linked by closed-circuit television for sharing their best instructional resources. In Texas a state-wide network of commercial stations cooperated with educational agencies to provide for wide scale training of teachers for certification. In Alabama, Nebraska and Oklahoma tens of thousands of students have been provided with instruction of a kind and quality not normally available to them. There are many other examples of the applications of television to the solution of different educational problems in New England, New York State and City, in Philadelphia and Pittsburgh, in North Carolina and Florida, in Houston, Texas and Detroit, in Cincinnati and Milwaukee, in Denver and Seattle. Many of these developments overlap with the increase in the number of educational broadcasting stations, a development which is providing a fourth national network dedicated to education's needs, aims and objectives. In this connection, the very significant work of the Joint Committee on Educational Television and the National Educational Television and Radio Center should be noted. However, neither of these organizations importantly sponsored research although both encouraged it.

You may well ask why these activities are included in a review of research and "experimentation" in television. The reasons are these: Educational "experimentation" as conceived during the decade under review in America meant the introducing of changes into educational systems which have possibilities of success and failure. The concept "experimentation" as used is not restricted to investigations which are designed and conducted to prove hypotheses, test theory, control relatively homogeneous variables, measure quantitatively the effects of specified conditions or validate the results in terms of the learning behavior of students. Some projects have done these things, it is true, and research on instructional television has often used the approved statistical methodologies. Nevertheless, in the main educational "experimentation" has involved the introduction of new conditions or methods and the assessment of results mainly on the basis of qualitative data, observations and the judgments of men who influence educational decisions.

One way of describing what has occurred in television research during the 1950's is to say that operational and practical models have been planned, activated and field tested. Some excellent evaluations have been

made but usually with more qualitative than quantitative assessments. The tests of success or failure have been largely pragmatic. The general criteria used in judging projects appear to be the following:

1. Can television be used to accomplish a critical educational task that needs to be done?
2. When the "experimental" phases of a project are completed will the instrumentation and patterns of use be continued and extended as needed with regular budget support?
3. Will the established model be copied and duplicated in other situations where similar needs exist?
4. Are the potentials of television and the demonstrated patterns of use appropriately related to the expanding demands for "quantity" and "quality" in American education?
5. Can the instrumentation and demonstrated patterns of use be justified in terms of economic and other feasibility factors?
6. Will the effects on learning of individual pupils or students be at least equal to the effects on learning of other possible methods?

It can be observed that when all of these criteria are used in judging the results of a television project then it has been required to meet a very critical or even severe test of practicality and validity. Rarely in the past have educational "experiments" been required to satisfy more severe standards of evaluation than have been demanded of television research.

An all too brief way of summarizing the results of "experimentation" and research with television in training and education during the past ten or twelve years is to state that the majority but not all of the projects which have been conducted have met most of the criteria listed above.

It apparently can be concluded with sound reason that the kinds and levels of practical or pragmatic research on television which has been conducted during the past decade has run its course. If this is accepted as correct, then there are two important implications:

First, the models which have been developed, tested and proven to be successful practically can now be used as important means of solving many overwhelmingly difficult problems in education. These successful models are in existence for public school systems, for colleges and

universities, for regional and state-wide areas and for national programs. The opportunity now is available for studying them, transferring and extending them and adapting them appropriately to areas of need in education. To accomplish these things open-mindedness and professional objectivity is required and this includes the determination and competencies for developing and using new methods to solve new problems.

The second major implication that can be drawn from a review of television research is that the previous research patterns, methods and levels of investigation should be changed. This could be a shift of emphasis toward more fundamental and systematic research not only on the medium, but more especially, on complex systems of instructional communications. This implication relates most closely to the research and experimentation now being sponsored through grants by the National Defense Education Act of 1958, and particularly by Title VII, Section A.

Against the background of research which has been briefly reviewed it seems to be clear that the research now being sponsored by Title VII of the National Defense Education Act should begin a new cycle of experimentation and research. In the first place the records of ten or twelve years and of extensive and significant projects are available for study and guidance. Information is available which indicates what are the "blind alleys" and the many potentially productive theoretical hypotheses which deserve investigation. In the second place, the Cooperative Research program of the United States Office of Education has provided valuable experience in administering Federal grants for good research on a wide range of problems extending from those which may have immediate usefulness to theoretical research hypotheses which, when tested and formulated into principles, may have remote utility.

The support which has been available for research with the communications media and audio visual aids under Title VII, Section A exceeds the funds ever before invested in such research and media related to the improvement of learning. This is in part due directly to previous investments in research on sound motion picture, radio and especially television. This research not only discovered promising leads and improved the methods of media research but also fostered the development of interests in the area and provided for many people necessary training for undertaking the more advanced levels of investigation.

The reports on projects sponsored by Title VII are just beginning to be published. Nevertheless, the effort has produced observable changes in the pattern of media research during the past two years:



1. There is a reduction almost to the vanishing point of research proposals which outline plans for research as a means, if supported, of purchasing large amounts of equipment needed by an educational operation but for which funds were not otherwise available.
2. There has been a very rapid rise in the standards of research methodology. It is remarkable how quickly the needs for randomizing subjects into control and comparison groups has been learned and is now being built into research designs. The usefulness of the statistical analysis of covariance has been rapidly recognized. Furthermore, there appear to be some improvements in the measurement of effects on subjects of stimulus materials.
3. One gains the impression that an increasing number of proposals have a theoretical orientation and that fewer of them are directed toward answering superficially practical questions of the "will it work" or "can it be done" type. Nevertheless there remain great and challenging opportunities for the development of fundamental theoretical hypotheses for experimental testing and, if possible, the re-formulation through research of hypotheses into tested principles for use in regulating and optimizing conditions for learning.
4. The proposals submitted to the U. S. Office serve as a barometer of interests among media research workers in both the media and problems of learning. One shift that is clearly discernible is from television toward "teaching machines". Another change is to an increased emphasis on the origination of programs of learning and the controlled application of principles governing learning.
5. The work under review at this Conference has done two other things: First, it has provided a large number of investigators who work in a critical area of education with a possible source of support which did not previously exist for them. Second, the work has revealed the critical shortage of available and highly competent men for the difficult work of studying complex instructional communication processes.
6. Finally, the research in progress under Title VII weighs heavily as evidence in the arguments not merely for continuation of Federal support for this area of research but also for expansion of this support and cooperation of the states.

In conclusion, there are two main propositions, inferences or interpretations which can be made relative to television research:

First, the consumers of television research, the practical educators and administrators now have available a solid body of evidence which can be used in solving significant educational problems. Furthermore, responsible administrators have models in being that can be observed and adopted. However, both the evidence and the working models will need to be viewed with a clear eye of critical objectivity, unclouded by prejudice either for or against innovations. In addition educators will need to assess the new media of communications as being a central part of educational facilities and programs. They should be willing to find new methods of solving new problems.

Second, researchers and those who administer research must realize the importance and difficulty of the problems of learning and relative to these the primitive state of our certain knowledge. As a consequence appropriate means should be provided for attacking the very complex problems of learning and intellectual growth. The means required may be of the dimensions of those now made available for research in the atomic energy field or for space exploration.

One of the Presidential candidates has proposed the establishment of great national and continuing research centers. It is suggested that several of these centers be dedicated to research on learning. Associated with these centers for research on learning should be established model schools and colleges in which the latest research results would be used, field tested and given national visibility.

# Chicago City Junior College

3400 NORTH AUSTIN AVENUE

CHICAGO 34, ILLINOIS

July 12, 1960

PETER MASIKO JR. DEAN  
CLIFFORD G. ERICKSON, ASSISTANT DEAN  
IN CHARGE OF TELEVISION EDUCATION

TELEPHONE: SPRING 7-7900

*Noted DLB  
Please file for  
reference,  
7-18-60*

James L. Wattenbarger, Director  
Division of Community Junior Colleges  
State of Florida  
Department of Education  
Tallahassee, Florida

Dear Jim:

In response to your request, I am writing this report of my observations and impressions of the two workshop sessions on educational television which we held recently at St. Petersburg and Dade County junior colleges.

First, let me express my thanks for the opportunity to participate in these meetings and to share with you and the respective staffs the experiences we have gained in Chicago. Thanks are also in order for your hospitality and the accommodations provided.

In both workshops the nature of the questions asked indicated that you are wrestling with the right questions. It is important that you anticipate as many of your problems as possible before you get fully under way, even though this will in no sense eliminate the problems which normally develop in the unfolding of a new program.

Perhaps the most important single problem which I sensed is the one relating to who has the final responsibility for the educational and instructional aspects of your television program. I would urge you most strongly to see to it that the local college administration and the teaching staff retain the ultimate control of the program materials, in exactly the same way that these two groups maintain the responsibility within the college classroom.

I would emphasize the central role of the teacher in the development of the courses, in the development of audio visual aids or for the making of tapes. Our experience is that while the technical staff can provide such valuable criticism and suggestions, the final decisions concerning what the teacher will do in the television lessons must be left in the hands of the teacher.

I have no doubt that with the excellent physical facilities which you have in both locations and with a competent staff under the jurisdiction of the local school authorities, it should be possible to de-

BRANCHES OF THE CHICAGO CITY JUNIOR COLLEGE MAINTAINED BY THE CHICAGO BOARD OF EDUCATION

AMUNDSEN BRANCH  
5110 N. DAMEN AVE.  
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SPRING 7-7900

velop a healthy, cooperative relationship between the technical staff and the teaching staff. Once you are assured that you have the right teachers, they must be given the widest latitude in the development of their television lessons.

A variety of questions arose concerning the reduction in the teaching load and/or extra pay for teachers involved in television courses. There is no formula for this since circumstances are different in every community. My own inclination is to be as liberal as possible, particularly in the early developmental stages of the program so as to minimize teacher opposition and resistance. Our experience has been that it is possible to cut back on the allowances made without impairing the willingness of teachers to participate.

I think it will be important in the development of the program in Florida to try to involve the local junior college talent as much as possible in all aspects of the television program so that they are made to feel that they are an important part of this educational experience. Contact with the producers of the tapes will be helpful. In addition, if the local teachers can get involved in the development of supplementary materials to go with the tapes and in the development of examination materials, they will likely feel that they are making an educational contribution to the total program.

In this connection, I think it would be desirable, if local talent is available, to conduct some small experimental classes so that the teachers may have some experience with television classes as well as with normal classroom instruction in order that they may have a basis for comparing the quality of the two systems. A high quality tape does not automatically mean a high quality educational experience for the students. The teachers must learn through experience what their proper role is in making the television lesson a high quality experience for the students.

In order to maximize the effectiveness of the television lessons, it will be necessary to see that high grade receiving sets are available and that they are kept in good working order. Economy in this area will be very expensive in terms of resistance to television teaching.

Questions relating to teachers' rights in taped courses and possible royalty payments for re-use of tapes might be left unanswered for the time being until more experience is gathered, both in your local situation and nationally on these matters. An important consideration in this connection is the fact that most taped courses will not have too long a life. Except in the case of courses which are very expensively produced, the possibilities of rental to other school systems appear rather limited. If it is necessary to make decisions on these questions, it will probably be safest to make individual agreements and to keep them on a modest financial basis.

I look upon our program and those which you are contemplating in terms of a long term capital investment in the development of educational

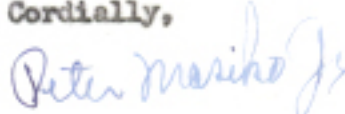
James L. Wattenbarger

July 12, 1960

possibilities for students who we probably will not be able to service with our traditional means of instruction. Hence, I think it will be wise to proceed slowly and deliberately, to avoid "penny pinching" during this developmental period, and to take the teaching faculty into confidence concerning the long range objectives of the program. You should take full advantage of the possibilities presented by television instruction for the in-service training of the faculty, particularly where a new institution is being developed.

The extent to which your regional and state wide network of telecasting will gain acceptance by local junior colleges will depend in large measure on the care exercised at this stage of your program. There is no question about the right of the state to establish this kind of network. This, however, will not guarantee its success. For maximum effectiveness, you must get the classroom teachers to be eager partners to this type of instruction.

Cordially,



Peter Masiko, Jr.  
Executive Dean

PH fl



*D. Brumbaugh*

RECEIVED

JUL 11 1960

BOARD OF CONTROL

## Rensselaer Polytechnic Institute

TROY, NEW YORK

SCHOOL OF ARCHITECTURE  
PROJECT DASFEE

7 July 1960

Dr. Broward Culpepper  
Executive Director  
Board of Control of the State of Florida  
Tallahassee, Florida

Dear Dr. Culpepper:

I was interested in seeing a recent press release on the awarding of funds for the planning of the new university at Boca Raton. The concept of this proposed institution is extremely interesting and challenging particularly to us here at Rensselaer since we have been working on Project DASFEE.

For your interest, I enclose a copy of the Statement of the Project which describes in some detail this EFL sponsored study which deals with the architectural considerations of the facilities for higher education, particularly engineering education where the utilization of the many new technical instructional aids and media form a part of the education philosophy. Our final report will, in part, consist of prototype studies which we trust can be used as guides in planning facilities for real situations. The final report is due for completion early in 1961 and there may be material that would be of use in your planning process. In the meantime we would be most interested in hearing of any further developments in the proposed Boca Raton university as the plans for it develop.

Aside from my interest in this area as engendered by my association with DASFEE, I am also a graduate of the University of Florida's School of Architecture and always interested in educational developments in the State of Florida.

Sincerely yours,

Alan C. Green  
Associate Investigator

ACG:mzk  
Enc.

**PROJECT DASFEE  
SCHOOL OF ARCHITECTURE  
RENSSELAER POLYTECHNIC INSTITUTE  
TROY, NEW YORK**

**A STATEMENT OF THE PROJECT**

Rensselaer's School of Architecture is carrying forward this study under a grant from the Educational Facilities Laboratories, Inc. The project, which has been given the code name DASFEE, is described as "design studies of auditorium-studio facilities for the effective teaching of concepts in engineering education".

It is the objective of the study to investigate the spaces required by the new technical instructional aids which have been developing so rapidly and finding ever widening application during the past few years. These devices, such as open and closed-circuit television, audio tapes, films, projected materials, and large-scale models and demonstrations, have been developed to provide a high quality of instruction while endeavoring to meet the demands of increased enrollment. Their educational validity, as well as economic feasibility, is being explored through numerous pilot experiments and studies undertaken throughout the country, and among which are the current RPI experiments conducted through its Project Reward. This investigation will be directed toward the physical, mechanical and structural requirements of the spaces, and will also consider the effect of educational philosophies on the interrelationships between studios, auditoriums, classrooms and control centers in the teaching process.

During the course of the project, architects, engineers and equipment specialists, in addition to educators, will be drawn to the campus to participate in working conferences as well as act as consultants to the Project Staff. This will permit benefiting from the wide experience and background of persons particularly knowledgeable in certain aspects of the study. An Advisory Committee composed of representatives from Case Institute of Technology, Georgia Institute of Technology, Southern Methodist University, Stanford University and Rensselaer has been appointed, and will meet in Troy periodically to advise the Project Staff in determination of basic premises for design and methods of carrying out the objectives of the study.

It is felt the results of the study will be applicable to a number of real situations throughout the country, not all limited to engineering education. The grant is for a one year period with completion scheduled for approximately January 31, 1961.

July 20, 1960

Mr. Alan C. Green  
Associate Investigator  
School of Architecture  
Rensselaer Polytechnic Institute  
Troy, New York

Dear Mr. Green:

Dr. Broward Culpepper has referred to me your letter of July 7.

Plans for the university at Boca Raton are still in the early stages of development. We contemplate extensive use of television and various technical aids to learning. Should you have preliminary reports to which we might have access we would be grateful for them. At the present time we do not have materials that we can release.

Since you are a graduate of the University of Florida's School of Architecture you may know Mr. Forrest M. Kelley and Mr. Edward Fearney who are working closely with us.

Thanks for your interest.

Sincerely yours,

A. J. Brumbaugh  
Director, Planning Commission

AJB:jg



July 6, 1960

Mr. John Brugger  
Board of Education  
Administration Building  
Hagerstown, Maryland

Dear Mr. Brugger:

We are glad that you have consented to serve on our "Television Task Force." Others who will make up the task force are Dr. C. Ray Carpenter, Chairman, and Dr. Kenneth Christiansen. It is possible that Dr. John E. Ivey, Jr., will also serve.

The task force will meet at 9:30 a.m., July 18, in the office of the Planning Commission, 239 Suwannee Arcade, Florida State University. You probably will want to consider such matters as (1) the role of television instruction in the program of the university at Boca Raton, (2) plans for organizing and operating television instruction in conjunction with the junior colleges, and (3) some preliminary estimates of space requirements and costs.

The enclosed schedule of airline flights to and from Tallahassee may be helpful to you in planning your trip. Also enclosed is Form C-677, State of Florida Request for Transportation, in duplicate, for your use in obtaining a round-trip ticket to Tallahassee. The issuing office will complete the form, retain the original, and return the copy to you. Please bring the copy with you, as it is required for accounting purposes.

We will pay the expenses you incur in attending the meeting and an honorarium of \$100 for the day you spend working with the task force.

Mr. John Brugger  
July 6, 1960  
Page 2

If you will let us know when you plan to arrive, we shall be glad to make a reservation for you at the Duval Hotel.

I look forward to having you with us on July 18.

Sincerely,

A. J. Brumbaugh  
Director, Planning Commission

AJB:jg

Enclosures

WASHINGTON COUNTY CLOSED-CIRCUIT TELEVISION

Board of Education  
P. O. Box 730  
Hagerstown, Maryland  
REgent 3-5681

WILLIAM M. BRISH  
Superintendent

July 11, 1960

JOHN R. BRUGGER  
Chief Engineer

Dr. A. J. Brumbaugh, Director  
Planning Commission  
Board of Control of Florida  
Tallahassee, Florida

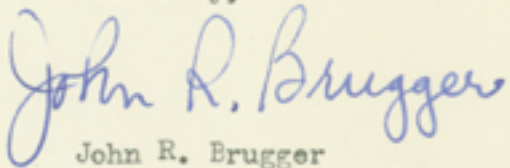
Dear Dr. Brumbaugh;

This is to accept your invitation to participate with the  
"Television Task Force" as outlined in your letter of July 6.  
It will be a pleasure to work with you and others listed.

I have reservations to make connection with Flight 273 from  
Atlanta to arrive in Tallahassee at 4:17 PM, Sunday, July 17.  
I would appreciate it very much if you would make reservations  
for me at the Duvall Hotel in Tallahassee.

I look forward to meeting with you and the committee.

Sincerely,

  
John R. Brugger

JRB:a

July 29, 1960

Mr. John R. Brugger  
Board of Education  
P. O. Box 730  
Hagerstown, Maryland

Dear Mr. Brugger:

We are enclosing State Warrant No. 022348 which includes the honorarium and reimbursement for travel and other expenses incurred during the meeting of the Television Task Force on July 18, 1960.

Sincerely,

(Mrs.) Marion F. Buford  
Research Assistant

MFB:jg

Enclosure - Check - \$126.51

WASHINGTON COUNTY CLOSED-CIRCUIT TELEVISION

Board of Education  
P. O. Box 730  
Hagerstown, Maryland  
REgent 3-5681

WILLIAM M. BRISH  
Superintendent

July 29, 1960

JOHN R. BRUGGER  
Chief Engineer

Dr. A. J. Brumbaugh, Director  
Planning Commission  
Board of Control of Florida  
Tallahassee, Florida

Dear Dr. Brumbaugh:

I am sorry to bother you with this, however it may avoid further confusion. You will see from the enclosed letter that I erred in filing the Travel Request with a travel agency.

It seems impractical to follow the instructions of the letter from the County Finance Director because the situation is a bit more complicated. This is what I did.

- (1). I presented the Travel Request 47581 with a travel plan which you had suggested. The passage was arranged, round trip, from Washington. When I called to pick up the ticket I pointed out that I was to proceed from Hagerstown; that the ticketing should read round trip from Hagerstown. The Travel Agency corrected the matter to read round trip Air, Hagerstown to Tallahassee. Investigation showed that Allegheny had no service Sunday to connect with the Eastern Air Line Flight 307. I suggested that the ticket price show on the Travel Request to be air travel round trip (\$143.11). I used private conveyance then to arrive in Washington in time to connect with the Eastern Air Lines Flight 307 (ticket No 074A 618007).
- (2). I returned to Washington via Eastern Air Lines, per ticket 074A 618007. Round trip ticket \$125.07.
- (3). I purchased Allegheny air ticket 372 506656 for return flight from Washington to Hagerstown (\$10.12).
- (4). Mileage from Hagerstown to Washington National Airport is (one way) 75 miles.

I paid for the ticket (Eastern Airlines 074A 618007) in the amount of \$125.07, likewise the Allegheny ticket in the amount of \$10.12.

Would you be so kind as to advise me as to the procedure I should take in meeting the requirements of the Florida Comptroller's Office?

Best personal regards.

Sincerely,

*John R. Brugger*

August 1, 1960

Mr. John R. Brugger  
Board of Education  
P. O. Box 730  
Hagerstown, Maryland

Dear Mr. Brugger:

Dr. Brumbaugh is on vacation, and I am answering your letter to him.

I regret that you have had so much difficulty with the State of Florida transportation request.

We have taken the matter up with the Comptroller's Office, and it will be handled from here. However, it appears from your letter that you have expended your personal funds for tickets in the amount of \$135.19 plus the cost of private transportation from Hagerstown to Washington. We can reimburse you for the latter at ten cents per mile, and if you can furnish receipts or other evidence of the expenditure of the \$135.19, it will facilitate our handling of the matter with the Comptroller's Office.

If I have misinterpreted your letter, and you did not pay for the tickets with your personal funds, please let me know.

Sincerely,

(Mrs.) Marion F. Buford  
Research Assistant

MFB:jg

WASHINGTON COUNTY CLOSED-CIRCUIT TELEVISION

Board of Education  
P. O. Box 730  
Hagerstown, Maryland  
REgent 3-5681

WILLIAM M. BRISH  
Superintendent

August 4, 1960

JOHN R. BRUGGER  
Chief Engineer

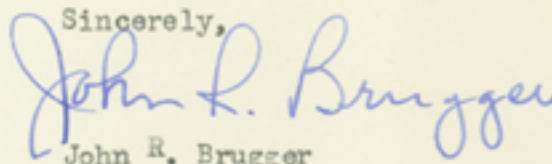
Mrs. Marion F. Buford, Research Assistant  
Board of Control of Florida  
Tallahassee, Florida

Dear Mrs. Buford:

Enclosed are the passenger coupons issued to me relative to the Tallahassee and return travel as outlined in my earlier letter.

I believe these will cover the portions of the travel covered other than by private car to Washington. You have interpreted my letter correctly, and I thank you for your assistance.

Sincerely,



John R. Brugger

August 15, 1960

Mr. John R. Brugger  
Board of Education  
P. O. Box 730  
Hagerstown, Maryland

Dear Mr. Brugger:

We are enclosing an expense voucher in triplicate covering your travel expenses in connection with your recent trip to Tallahassee. Please sign the original and one copy and return them to us.

I regret the further delay in processing this voucher for payment, but I was on vacation when your letter of August 4 arrived and did not return to the office until today.

Sincerely,

(Mrs.) Marion F. Buford  
Research Assistant

MFB:jg

Enclosure



BOARD OF CONTROL - CONSULTANTS

Per Diem and Expenses

Period July 17, 1960 to July 19, 1960  
 Per Diem \$                     

Expenses:

Lodging \$                     

Meals                       
 Air Travel \* 122.90

Taxi                       
 Mileage 7.50

Other 12.29

Total 142.69

142.69

TOTAL \$ 142.69

Remarks: \* Washington, D.C., to Tallahassee and return and Washington, D.C., to Hagerstown, Md. Tickets purchased with private funds as ticket issued on TR #47581 in error and (Signed)                                      was issued could not be used. TR #47581                                      Mailing Address                                                                           ~~on which the ticket was issued~~ has been returned to the Comptroller's Office.

**IMPORTANT**  
**Your Reservation Will Be Cancelled**  
**UNLESS YOU RECONFIRM**

**YOU MUST RECONFIRM** your intention to use your reservation at each city where you hold a reservation on a flight scheduled to leave more than 12 hours after your planned arrival in that city. This applies whether you are arriving by air or other means.

To reconfirm, simply inform Allegheny Airlines at the city where you are boarding your flight of your intention to use your reservation; if possible, give them your telephone number in that city. This should be done as soon as possible after arriving, and **MUST** be done not later than six hours before scheduled flight departure in the United States and Canada. Reconfirmation helps us to help you.

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**We are required to cancel your reservation unless you reconfirm**

**WHERE AND WHEN TO RECONFIRM:**

- 1. At MEXICO CITY, BERMUDA AND SAN JUAN:** When you arrive by air and your scheduled departure is 48 hours or more after your planned arrival, you must reconfirm at least 48 hours before scheduled departure time.
- 2. AT ALL OTHER CITIES:** When you arrive in a city by air or other means, if the dates of your planned arrival and scheduled departure are different and you will spend at least 12 hours in that city, you must reconfirm at least 6 hours before scheduled departure time.

**HOW TO RECONFIRM:** Simply inform the airline (at the city where you will board your continuing or return flight) of your intention to use your reservation.

**Note:** If your itinerary includes international travel via a carrier other than Eastern Air Lines, please contact that airline to determine their application of this rule.

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CONJUNCTION TICKETS

DATE AND PLACE OF ISSUE OF THIS TICKET

VIC. HILL  
JUL 28 1960  
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HAGERSTOWN, MD.

ORIGIN

FORM

SERIAL

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ISSUED IN EXCHANGE FOR

DATE AND PLACE OF ORIGINAL ISSUE

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SERIAL

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NAME OF PASSENGER

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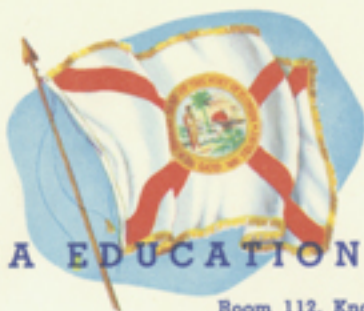
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FORM OF PAYMENT

If the passenger's journey involves an ultimate destination or stop in a country other than the country of departure, the Warsaw Convention may be applicable and the Convention governs and in most cases limits the liability of carriers for death or personal injury and in respect of loss of or damage to baggage.



## FLORIDA EDUCATIONAL TELEVISION COMMISSION

Room 112, Knott Building — Telephone: 3-5089

TALLAHASSEE, FLORIDA

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August 10, 1960

JAMES ETHERIDGE, JR.  
*Executive Secretary*

Dr. A. J. Brumbaugh  
c/o State Board of Control  
Florida State University  
Tallahassee, Florida

Attention Mrs. Marion Buford

Dear Dr. Brumbaugh:

Dr. James Wattenbarger has suggested that I send you the enclosed list to whom copies of Dean Masiko's report have been mailed, and to ask that you suggest the names of others to whom this report (copy enclosed) should be sent.

I have here in the office a much more detailed report on the Chicago City Junior College program of the last four years and will be glad to furnish it to you if you do not already have a copy.

Thank you.

Sincerely,

James Etheridge, Jr.  
Executive Secretary

JEmj  
Enclosures  
cc Dr. James L. Wattenbarger  
Dr. Myron R. Blee

Excerpts from Dr. Peter Masiko's report (July 8 & 9, 1960) were sent to:

All Commission Members

All Junior College Presidents

All University Presidents

All Members on Committee on Relating Public Secondary & Higher Education

All Task Force Members & Associate Members

All Liaison Committee Members

All General Managers/Program Directors & Others in Reserved Channel areas

All County Superintendents in Junior College areas.  
(plus Ish Brant & Amos Godby)

Board of Control Members and Staff

also:

Dr. Ted Cooper, FAMU

Dr. Joe Hooten, FSU

Mr. Crockett Farnell, Hillsborough County

"Private" Junior College Presidents



THOMAS D. BAILEY  
SUPERINTENDENT

STATE OF FLORIDA  
DEPARTMENT OF EDUCATION  
TALLAHASSEE



Excerpts from

REPORT ON ETV CONFERENCES

held at

St. Petersburg Junior College and at Dade County Junior College, Miami

July 8-9, 1960

CONSULTANT: Peter Masiko, Jr.  
Executive Dean  
Chicago City Junior College

(Where Junior College credit courses, with the same validity and credit value as resident instruction, have been successfully broadcast for four years.)

In both workshops the nature of the questions asked indicated that you are wrestling with the right questions. It is important that you anticipate as many of your problems as possible before you get fully under way, even though this will in no sense eliminate the problems which normally develop in the unfolding of a new program.

Perhaps the most important single problem which I sensed is the one relating to who has the final responsibility for the educational and instructional aspects of your television program. I would urge you most strongly to see to it that the local college administration and the teaching staff retain the ultimate control of the program materials, in exactly the same way that these two groups maintain the responsibility within the college classroom.



I would emphasize the central role of the teacher in the development of the courses, in the development of audio visual aids or for the making of tapes. Our experience is that while the technical staff can provide much valuable criticism and suggestions, the final decisions concerning what the teacher will do in the television lessons must be left in the hands of the teacher.

I have no doubt that with the excellent physical facilities which you have in both locations and with a competent staff under the jurisdiction of the local school authorities, it should be possible to develop a healthy, cooperative relationship between the technical staff and the teaching staff. Once you are assured that you have the right teachers, they must be given the widest latitude in the development of their television lessons.

A variety of questions arose concerning the reduction in the teaching load and/or extra pay for teachers involved in television courses. There is no formula for this since circumstances are different in every community.

I think it will be important in the development of the program in Florida to try to involve the local junior college talent as much as possible in all aspects of the television program so that they are made to feel that they are an important part of this educational experience. Contact with the producers of the tapes will be helpful. In addition, if the local teachers can get involved in the development of supplementary materials to go with the tapes and in the development of examination materials, they will likely feel that they are making an educational contribution to the total program.

In this connection, I think it would be desirable, if local talent is available, to conduct some small experimental classes so that the teachers may have some experience with television classes as well as with normal classroom instruction in order that they may have a basis for comparing the quality of the two systems. A high quality tape does not automatically mean a high quality educational experience for the students. The teachers must learn through experience what their proper role is in making the television lesson a high quality experience for the students.

In order to maximize the effectiveness of the television lessons, it will be necessary to see that high grade receiving sets are available and that they are kept in good working order. Economy in this area will be very expensive in terms of resistance to television teaching.

I look upon our program and those which you are contemplating in terms of a long term capital investment in the development of educational possibilities for students who we probably will not be able to service with our traditional means of instruction. Hence, I think it will be wise to proceed slowly and deliberately, to avoid "penny pinching" during this developmental period, and to take the teaching faculty into confidence concerning the long range objectives of the program. You should take full advantage of the possibilities presented by television instruction for the in-service training of the faculty, particularly where a new institution is being developed.

The extent to which your regional and state wide network of telecasting will gain acceptance by local junior colleges will depend in large measure on the care exercised at this stage of your program. There is no question about the right of the state to establish this kind of network. This, however, will not guarantee its success. For maximum effectiveness, you must get the classroom teachers to be eager partners to this type of instruction.

CHICAGO'S

# TV COLLEGE

a report of a three year experiment by  
the Chicago City Junior College

BENJAMIN C. WILLIS  
*General Superintendent*  
*Chicago Public Schools*

PETER MASIKO, JR.  
*Executive Dean*  
*Chicago City Junior College*

CLIFFORD G. ERICKSON  
*Dean of Television Instruction*

including a report of an evaluation by  
a panel of distinguished educators

Copyright 1960 by the Chicago Board of Education.

For copies of the more complete technical report prepared for professional educators and broadcasters write to

Clifford G. Erickson  
Dean of Television Instruction  
Chicago City Junior College  
3400 North Austin Avenue  
Chicago 34, Illinois

Since 1956, the citizens of Chicago and neighboring communities have had an opportunity which, so far as we know, had never before been offered elsewhere. They have been able to take an entire curriculum of junior college courses by television.

This has been made possible by a cooperative effort of the Chicago Board of Education and the Chicago Educational Broadcasting Association, whose station, WTTW, channel 11, broadcast the courses.

The first three years of this college by television were financed in part by a grant of \$475,000 made to the Chicago Board of Education by the Fund for the Advancement of Education. This grant made it possible to study in great detail the problems and the effect of offering regular college courses for credit by open-circuit television.

What is the difference between the way you prepare courses for television and the way you prepare them for the college classroom? What kind of person makes a good television teacher? How many students are attracted to college courses by television, and who are they? How does the quality of their work compare with the quality of work students do in classrooms? How much does it cost to teach students by television? Questions like these were the ones we were trying to answer in the first three experimental years of our TV College.

We have prepared a more detailed technical report summarizing the results of our experiment. Copies of it are available, as long as the supply lasts, to persons who are interested in

reading about the experiment in detail and especially those who are interested in the research results and statistical tables. In the following pages, however, we are making a brief report to the people, trying to answer in non-technical language some of the main questions about what we have found out in three years of study in TV College.

BENJAMIN C. WILLIS  
General Superintendent  
Chicago Public Schools  
July 15, 1960

### ***WHAT IS THE MOST IMPORTANT THING THE EXPERIMENT PROVED?***

That it is possible to present a complete junior college curriculum on open-circuit television, and with it reach an appreciative and highly motivated "student body" many of whom would otherwise be unable to go on with their education; and that it is possible in this kind of teaching to maintain classroom levels of instruction and student performance.

### ***HOW MANY STUDENTS TOOK THE TELECOURSES?***

The average semester enrollment for credit was 1,261 persons, who registered for a total of 2,321 courses, or nearly two courses per person. If all these people were gathered together in a conventional college, they would be the equivalent of about 500 full-time students and would require a faculty of at least 25 and a good-sized building. Of course, the fact that they can't come together in one building, and can't be full-time students, is one of the chief reasons for the telecourses.

Those were students for credit. In addition to those, about three times as many students each semester took the courses for no credit. The average enrollment of non-credit students per semester was 3,550 individuals, who took a total of 5,251 courses, or about one and a half each.

Behind the nearly 5,000 students who actually registered for the course was an audience which averaged from 5,000 to 35,000 persons at any telecourse broadcast. We don't know how many

of these persons stayed with a whole course from beginning to end, but it is possible that substantial parts of a junior college curriculum were going into more than half a million homes.

### ***WHO ARE THESE STUDENTS?***

Two-thirds of the credit students are women. The average age is in the middle or low thirties. Two-thirds of the credit students, men or women, are planning to complete at least the junior college curriculum, and one out of three is interested in becoming a teacher. Many of these students are mothers of teen-age children who expect soon to be able to go to work again; this group is the chief source of prospective teachers. Thus, the telecourses are educating a valuable group who otherwise would not be able to go on to college and who may help to meet some of our teacher shortage and our needs in other skilled occupations.

Also among the telecourse students are a large number of handicapped persons, a number of gifted high school students doing extra work to store up future college credit, and groups of convicts undergoing rehabilitation in two Illinois prisons.

### ***ARE THE REQUIREMENTS DIFFERENT FOR TELEVISION STUDENTS?***

Except for the requirement of class attendance, telecourse students have the same rules as classroom students. Entrance requirements are the same. Placement tests are required of both groups where appropriate. Telecourse students are no more



likely than classroom students of similar ages and experiences to have course prerequisites waived. Examinations are the same. In every way possible, the rules are kept the same.

***DO TELECOURSE STUDENTS DO AS MUCH WORK AS CLASSROOM STUDENTS?***

We find they do about as much supplementary reading and take about as many lecture notes. Apparently they are quite faithful in "attending" the courses, and their examination performance indicates on the average at least as much preparation. Their written assignments are above average in quality.

***HOW MANY OF THE TELECOURSE STUDENTS DROP OUT BEFORE THE COURSE IS FINISHED?***

About two-thirds of them finish the course and take the examination. The percentage completing a course can be raised by increasing the interaction between teacher and students and the student's opportunity to practice and test himself. Thus, devices like mail-in assignments, telephone conference hours, face-to-face conferences, and trial tests are useful supplements to television teaching.

***HAVE ANY TELEVISION STUDENTS SO FAR EARNED THE ASSOCIATE IN ARTS DEGREE?***

Yes, a number of them have already done so. Once these students get started in college work again, many of them are able to combine a course or two in the classroom with a course

or two by television and thus speed their progress. Some graduates, however, have done all their work by television. Another developing pattern is for full-time classroom students to pick up one or more of their courses by television.

***DO STUDENTS LEARN AS MUCH STUDYING AT HOME BY TELEVISION AS THEY LEARN IN THE CLASSROOM?***

In almost every case, they learn as much or more. A detailed research program was built into the project, employing careful scientific technique, taking account of the mental ability of the students and their previous knowledge of the subject, and using the same examinations for home TV students as for classroom students. This enabled us to make 29 comparisons of the performance of students who had face-to-face teaching in the classroom and students who had television teaching at home. We compared them in courses as different as Biology and Shorthand, Humanities and Accounting, Mathematics and Speech. The results are in the chart on the opposite page. You will see that out of 29 comparisons, home TV students did better in ten, the classroom did better in only one, and in the others there was no significant difference.

## 1956-57

Course:	The Research Compared:	Result:
English 101	Home TV vs. Classroom	No significant difference
Social Science 101	Home TV vs. Classroom	No significant difference
Biology 101	Home TV vs. Classroom	<i>More learning from TV</i>
Political Science 223	Home TV vs. Classroom	No significant difference
English 101	Home TV vs. Evening Class	No significant difference
English 102	Home TV vs. Classroom	No significant difference
Social Science 102	Home TV vs. Evening Class	No significant difference
Biology 102	Home TV vs. Classroom	<i>More learning from TV</i>
Mathematics 101	Home TV vs. Classroom	No significant difference

## 1957-58

Course:	The Research Compared:	Result:
Accounting 101	Home TV vs. Classroom	No significant difference
English 101	Home TV vs. Evening Class	No significant difference
English 102	Home TV vs. Classroom	No significant difference
Humanities 201-202	Home TV vs. Classroom	<i>More learning from TV</i>
Social Science 101	Home TV vs. Classroom	No significant difference
Biology 101	Home TV vs. Classroom	No significant difference
Biology 102	Home TV vs. Classroom	<i>More learning from TV</i>
Psychology 207	Home TV vs. Classroom	No significant difference
Shorthand 120	Home TV vs. Classroom	No significant difference
Physical Science 101	Home TV vs. Classroom	<i>More learning from TV</i>
Physical Science 101	Home TV vs. Evening Class	No significant difference

## 1958-59

Course:	The Research Compared:	Result:
Social Science 102	Home TV vs. Classroom	No significant difference
Social Science 102	Home TV vs. TV-in-Class	<i>More learning from TV-at-home</i>
Physical Science 101	Home TV vs. Classroom (North Side Center)	<i>More learning from classroom</i>
Physical Science 101	Home TV vs. Classroom (South Side Center)	No significant difference
Psychology 207	Home TV vs. Evening Class	<i>More learning from TV</i>
Psychology 207	Home TV vs. Classroom	No significant difference
Psychology 207	Home TV vs. Combined Day & Evening Classrooms	<i>More learning from TV</i>
Mathematics 103	Home TV vs. Evening Class	<i>More learning from TV</i>
Speech 141	Home TV vs. Classroom	<i>More learning from TV</i>
Speech 141	Home TV vs. Evening Class	<i>More learning from TV</i>
Humanities 201	TV-in-Class vs. Classroom	No significant difference
Humanities 202	TV-in-Class vs. Classroom	<i>More learning from classroom</i>

## 1957-58

Course:	The Research Compared:	Result:
Accounting 101	Home TV vs. Classroom	No significant difference
English 101	Home TV vs. Evening Class	No significant difference
English 102	Home TV vs. Classroom	No significant difference
Humanities 201-202	Home TV vs. Classroom	<i>More learning from TV</i>
Social Science 101	Home TV vs. Classroom	No significant difference
Biology 101	Home TV vs. Classroom	No significant difference
Biology 102	Home TV vs. Classroom	<i>More learning from TV</i>
Psychology 207	Home TV vs. Classroom	No significant difference
Shorthand 120	Home TV vs. Classroom	No significant difference
Physical Science 101	Home TV vs. Classroom	<i>More learning from TV</i>
Physical Science 101	Home TV vs. Evening Class	No significant difference

## 1958-59

Course:	The Research Compared:	Result:
Social Science 102	Home TV vs. Classroom	No significant difference
Social Science 102	Home TV vs. TV-in-Class	<i>More learning from TV-at-home</i>
Physical Science 101	Home TV vs. Classroom (North Side Center)	<i>More learning from classroom</i>
Physical Science 101	Home TV vs. Classroom (South Side Center)	No significant difference
Psychology 207	Home TV vs. Evening Class	<i>More learning from TV</i>
Psychology 207	Home TV vs. Classroom	No significant difference
Psychology 207	Home TV vs. Combined Day & Evening Classrooms	<i>More learning from TV</i>
Mathematics 103	Home TV vs. Evening Class	<i>More learning from TV</i>
Speech 141	Home TV vs. Classroom	<i>More learning from TV</i>
Speech 141	Home TV vs. Evening Class	<i>More learning from TV</i>
Humanities 201	TV-in-Class vs. Classroom	No significant difference
Humanities 202	TV-in-Class vs. Classroom	<i>More learning from classroom</i>

***WAS ONLY FACT-LEARNING MEASURED, OR WAS THERE AN ATTEMPT TO MEASURE OTHER THINGS A STUDENT CAN GET FROM A COURSE?***

We measured a great deal of skill learning — for example, the ability to write well (in English), to speak well (in the beginning Speech course), to take shorthand dictation, to keep books (in Accounting), and so forth. In some courses, like Mathematics, we measured the student's ability to solve problems. In Social Science, where critical thinking is one thing we try to help students learn, we made a special study to find out whether this, too, could be taught by television. We found that the home TV students made as much progress in critical thinking as did the classroom students. In each case, we examined the television students on exactly the same tests we gave the classroom students.

***DID WE FIND OUT ANYTHING ABOUT THE EFFECTIVENESS OF CLASSROOM TV?***

We studied five subjects in which some of the students took the course by television in the classroom. In four cases (Social Science 101, Humanities 201, one section of Physical Science 101, and Speech 141), there was no significant difference between the performance of the students who were taught by television and those who were taught face-to-face. In two cases (Humanities 202 and one section of Physical Science 101), the students who were taught face-to-face did better. In two of these courses, we also compared the performance of classroom TV students and that of home TV students. In one of these cases (Speech 141), there was no difference. In the other (Social Science 101), the home TV students learned more. It must be



remembered that most of the classroom TV students were not voluntarily taking the course by television, but had been put into the TV class for the sake of experiment. On the other hand, the home students were taking the course by television of their own free will and therefore were more highly motivated to do well in it.

### ***WHAT KINDS OF COLLEGE COURSES CAN BE TAUGHT ON TELEVISION?***

We have found it possible to teach successfully by television many different kinds of courses, including general education courses, basic skills courses, science, foreign language, humanities, social science, and specialized electives like accounting and shorthand. During our three experimental years we put on the air a total of 27 different courses, many of them several times. Among them were three English courses, two each in Biology, Mathematics, Physical Science, Social Science, Humanities, Psychology, Political Science, Shorthand, and Accounting, and one course each in Literature, Music, Speech, Astronomy, Business, and Russian. This is much more than we require for the junior college degree of Associate in Arts.

### ***WHAT DOES IT TAKE TO BE A GOOD TELEVISION TEACHER?***

In most cases, excellent classroom teachers can learn to be effective television teachers. Prime essentials are superior teaching skill, scholarship, personal and professional maturity, and the ability to work cooperatively with others. In addition, the teacher must wish to participate and therefore be willing to do

the extra work that is necessary when one gets ready to teach a telecourse. Everyone on our staff who has had experience with the preparation of these courses agrees that adapting the art of classroom teaching to the requirements of television involves preparation and creativity well beyond that which most classroom teachers have time to give their face-to-face teaching.

### ***HOW DOES ONE PREPARE A COURSE FOR TELEVISION?***

You don't have to change the objectives of classroom courses or the basic learning materials of these courses. As a matter of fact, it often saves you mistakes if you adapt a course which has already proved successful in the classroom. One thing you must do, however, is to arrive at a clear-cut definition of the objectives of the course. Once objectives are clear, then it is much easier to develop course outlines, lesson plans, student work assignments, and teaching aids. We find that preparation seems to go most easily when the teacher has the responsibility for the content of the course, although during the period of planning the teacher needs competent advice from persons experienced in television and television teaching. We give our teachers the equivalent of eight weeks at full salary to prepare a one-semester television course, and they find this not a vacation, but a very busy period.

### ***DID CHICAGO HAVE TO BRING IN SPECIALISTS AND STAR TEACHERS FROM OUTSIDE TO HELP WITH ITS TELEVISION COLLEGE?***

One of the most encouraging things we found is that a metropolitan junior college system like ours can put a junior college

curriculum on television and operate it successfully, using entirely its own resources. We found we could use our own teachers, build our own courses, and write our own materials.

### ***CAN ONE TREAT CONTROVERSIAL OR SENSITIVE MATERIAL IN TELEVISED COURSES?***

We find that the television teacher can present controversial or sensitive material without difficulty, at least in a metropolitan center like Chicago, if the approach is objective, scholarly, and devoid of sensationalism.

### ***WHAT IS DONE ABOUT COURSES THAT REQUIRE TWO-WAY CONTACT BETWEEN STUDENT AND TEACHER — COURSES LIKE ENGLISH WRITING AND SPEECH, FOR EXAMPLE?***

For all courses, we try to provide as much two-way contact as is necessary. All students have certain hours in which they can telephone an instructor to ask a question or, if necessary, make an appointment. "Content" courses are supported by four section meetings at the school: two one-hour conferences and two one-hour midterm examinations. Students in foreign language telecourses have eight bi-weekly section meetings for conversational drill and testing. Students of English writing turn in a theme a week, and get it back with grade and comments. Obviously, therefore, it requires more staff to teach a skills course by television than to teach a "content" course.

### ***DO TELEVISION STUDENTS NEED SPECIAL STUDY MATERIALS?***

Ordinarily they can use the same textbooks as classroom students. One thing they do need, and need badly, is a study guide. Telecasts appear to be a relatively poor means of communication of administrative information. Therefore, the student needs printed lists of assignments, readings, lecture topics, examinations, and so forth which provide guidance for study between telecasts. Most instructors want to include some readings and often practice exercises and review questions in the study guide.

### ***WHAT IS DONE ABOUT EXAMINATIONS FOR TELECOURSE STUDENTS?***

They take the same examinations as do the classroom students. The examination is taken under the supervision of a teacher at one of the branches of the Chicago City Junior College. Examinations for handicapped and prison students are administered by qualified proctors and graded by Junior College teachers.

### ***ARE TELECOURSES REPEATED EVERY SEMESTER OR EVERY YEAR, AS A COURSE ON CAMPUS WOULD BE?***

Courses required for graduation can be repeated every year. Elective courses lose enrollment fast if they are repeated too soon after the first offering. A delay of three or four semesters is necessary if most electives are to maintain their enrollments.

### ***DO STUDENTS LIKE TO BE TAUGHT BY TELEVISION?***

Most students who took television courses at home liked them very much, said they wanted to take more such courses, and recommended telecourses to their friends. College-age students who had television courses in the classroom liked them less well and were undecided about recommending telecourses to others. It must be remembered that the home TV students were taking a telecourse voluntarily, whereas many of the classroom students who expressed their opinions had been assigned to an experimental classroom-TV section even though they might have preferred face-to-face teaching.

### ***WHAT DO THE TEACHERS THINK OF TELECOURSES?***

Faculty acceptance of television as an educational tool has grown steadily since the beginning of our experiment. Teacher enthusiasm seems to grow with the amount of involvement. The more a teacher has a part in preparing courses, teaching sections of telecourses, or giving actual courses on television, the more the teacher usually likes this way of teaching.

### ***CAN STUDENTS GET CREDIT FOR TELEVISED COURSES IF THEY TRANSFER TO A SENIOR COLLEGE?***

Our experience shows that telecourse students deserve course credit equal to classroom instruction, provided that classroom standards of instruction and examination are maintained. We

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Our experience shows that telecourse students deserve course credit equal to classroom instruction, provided that classroom standards of instruction and examination are maintained. We

know of no college or accrediting agency which questions the transferability of credits earned by telecourse in the Chicago City Junior College.

### ***DOES IT COST MORE TO TEACH BY TELEVISION THAN FACE-TO-FACE?***

Considering only the credit students and counting in the special expenses of a research project, it has cost a little more to teach the same number of units of credit instruction to home students than to classroom students. If the home enrollments were to be somewhat increased, the costs could probably be equalized, and thereafter additional numbers of home TV students could be served at much reduced unit costs.

However, in addition to the credit student, the television courses were serving three times as many non-credit students and a very large audience of non-credit, non-registered viewers. If a financial accounting could set a value on these extra services to the people of Chicago, then a unit cost much lower than classroom costs could be assigned to that part of the television teaching received by credit students only.

### ***HOW DO YOU ADMINISTER A TV COLLEGE?***

The six branches of the Chicago City Junior College are coordinated administratively by an executive dean, Dr. Peter Masiko, Jr., who is responsible to the General Superintendent of Schools, Dr. Benjamin C. Willis. For the most part, TV College simply operates as part of the Chicago City Junior College. It offers courses that are also offered in the classroom.



Teachers for TV are chosen from the regular full-time faculty of the College. Television students are registered in the College. Admission requirements, placement tests, course prerequisites, and all other requirements except attendance in the classroom are the same for all students, television or not.

To handle some of the new responsibilities arising from television teaching, a dean of television instruction has been appointed to the staff of Dean Masiko. He is Mr. Clifford Erickson. With the aid of a research and curriculum specialist, a television producer, and a small clerical staff, he is responsible for television policies, selection of teachers and courses to be broadcast, consulting with teachers who are preparing courses, advice and assistance in production of courses, registration of non-credit students, and such matters.

### ***WHAT DOES THE BOARD OF EDUCATION THINK OF ITS EXPERIMENT?***

The best answer was given by the Board itself. At the close of the three-year experiment, part of which had been supported by the Fund for the Advancement of Education, the Chicago Board of Education voted to continue TV College as a service to the Chicago community. TV college has completed its fourth year, offering 51 periods of college instruction per week to the largest spring-term registration in its history.

**Copy of the Report of an Evaluation of TV College  
by a Panel of Distinguished Educators**

June 15, 1960

Dr. Benjamin C. Willis  
General Superintendent of Schools  
228 North LaSalle Street  
Chicago 1, Illinois

Dear Dr. Willis:

We have looked with some care at the Chicago Public Schools' experiment in teaching a junior college curriculum by television. We have examined the research data, observed a number of programs, looked at examinations and study guides, and talked with persons representing all phases of the program.

Our conclusion is that the project has been conscientiously and competently conducted.

*What the Experiment Shows*

The experiment has demonstrated what the impact of a junior college on television can be in a metropolitan community, and it has helped to clarify the understanding of how instructional television can be most effectively used.

In some respects, the conclusions are not as expected, but they are no less important and useful than had been anticipated. We consider some of the more significant findings to be the following:

1. Courses at the junior college level can be taught effectively to a home audience by television. The results on this point were

most impressive and convincing. Indeed, in the few cases where there were significant differences between the performance of home TV students and classroom face-to-face students, the differences were more often in favor of the TV students than the others.

2. When junior college work is offered on television, it brings into the educational system a new group of students — an older group (median age in the 30's), most of them housewives, who are strongly motivated to continue their education but have been kept from doing so by home and family duties. These students like and are grateful for television courses. Once started on higher education by television, they are likely to go on to a junior or senior college degree. Many of them are planning to become teachers. Obviously this is an important group to bring back into education.

3. We have noted with interest, however, that offering a curriculum like this by television does not necessarily reduce the strain on junior college facilities. Because it builds an appetite in the community for higher education, and because many of the new students will take part of their work in the classroom, part on TV, it may well have the net effect of requiring *more* classroom space and *more* teacher time, although, to be sure, it spreads existing facilities to take care of more students.

4. The cost of educating credit students by television, in the numbers registered in Chicago, is a little more than the cost of educating them in the classroom. If the registration could be increased by a fraction which may be as small as a third, the cost of TV teaching would compare favorably with the cost of classroom teaching. However, we urge that the utility of a junior

college television curriculum not be decided solely on the basis of comparative costs. The television courses are reaching a group of students most of whom would otherwise not take junior college work. It is serving a group of handicapped and otherwise restricted students. It is reaching a group of non-credit students, which averages several times the size of the group studying for credit. It is also reaching a group of casual viewers who are registered neither for credit nor without credit — an “eavesdropping” audience about which we know very little but which is estimated to range from five to twenty-five thousand persons per program. In other words, it seems to us that offering junior college courses on television is a service to the city of Chicago far wider than the service to credit students.

5. Evidence of the high motivation of the TV students and the welcome given the TV courses is the fact that about 65 per cent of the television students finish their courses and take the final examinations. This completion rate is quite remarkable when compared with other forms of adult education for credit.

6. The experiment did not produce evidence to show that teen-age college students can be effectively taught exclusively by TV. It may be that these younger students need more direct contacts with the teacher. However, it is now quite clear that TV can be used as the main channel for teaching the more mature and more highly motivated students who are chiefly attracted to the home classes by television. Even in the case of these students, however, it is evident that completion and high quality work can be encouraged by mail-in assignments, trial tests, and the possibility of face-to-face conferences and telephone conference periods.

7. One of the more interesting things the project has demonstrated is that a highly competent junior college on TV can be planned, organized, and presented by a metropolitan junior college system, using only its own resources. We do not believe that every junior college could do what the Chicago junior colleges, backed by the resources of the public school system, have done, but many of them could certainly put a curriculum on TV. Those who plan to do so could profitably study the Chicago experience, for Chicago teachers and producers have done a prodigious job on what is, for television, a very low budget.

8. The project has demonstrated that an effective classroom teacher can learn to be an effective television teacher. But a good classroom teacher is not per se a good television teacher. Adapting the teaching situation to television requires preparation and creativity well beyond what is possible in the time usually allotted to classroom teaching. Practice, self-criticism, and a great deal of detailed planning are necessary before even an expert teacher can be effective on TV. Whether a so-called "television master-teacher" would have been more effective than these Chicago teachers is something the project did not study; but it is clear that the art of television teaching is not limited to a few great teacher-actors.

9. We have been impressed by the usefulness of skillfully made study guides, work books, and other devices as aids and complements to television teaching, and look forward to the time when teaching machines or similar devices can be used to guide the student's practice.

10. The experiment appears to have generated a healthful ferment through the junior college system in Chicago. The

early fears of teachers that they might be superseded by a picture tube appear to have been mostly done away with. In their place has apparently come a new interest in stating clear course objectives, in using TV study guides in classrooms as well as home, in making better examinations on the pattern of the examinations for TV students, and in the experience of television teaching. We note with interest that whereas at first it was difficult to get volunteers for TV teaching, now the applications greatly exceed the openings.

We want to congratulate you most heartily on the conduct of your project and on what it has accomplished.

Norman Burns

Secretary, Commission on Colleges and  
Universities, North Central Association  
of Colleges and Secondary Schools

Henry Chauncey

President, Educational Testing Service

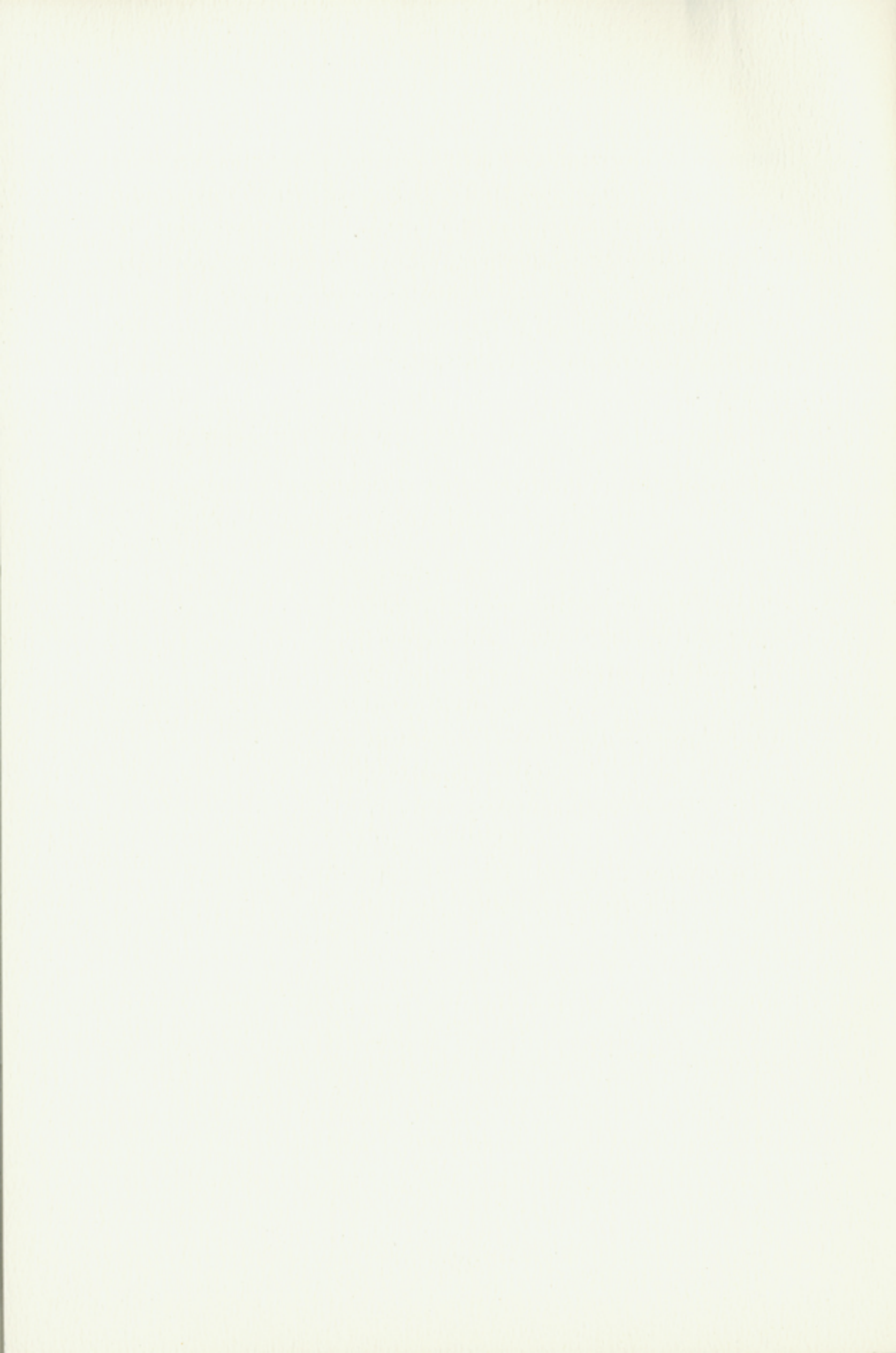
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President, Purdue University

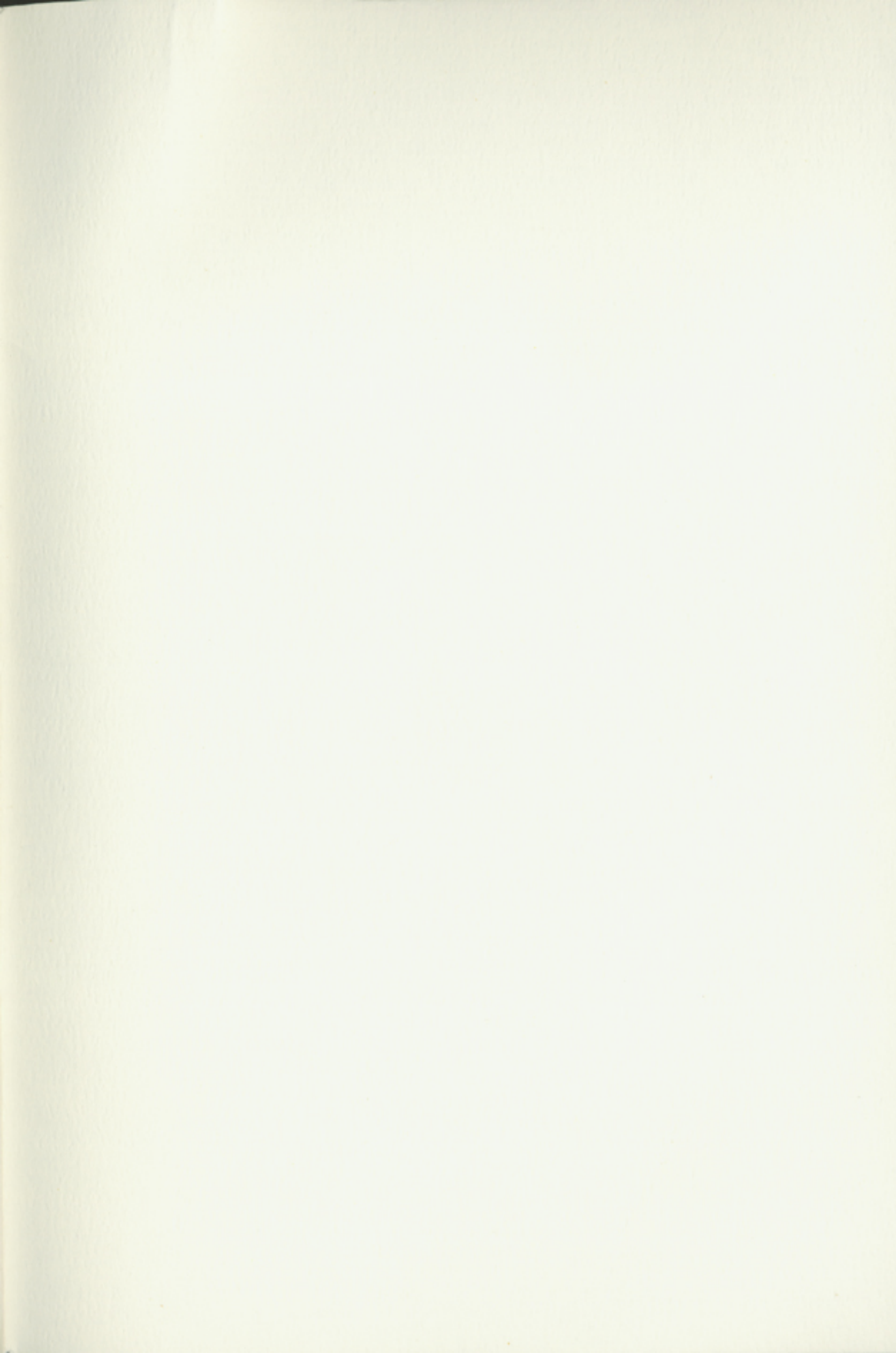
Wilbur Schramm

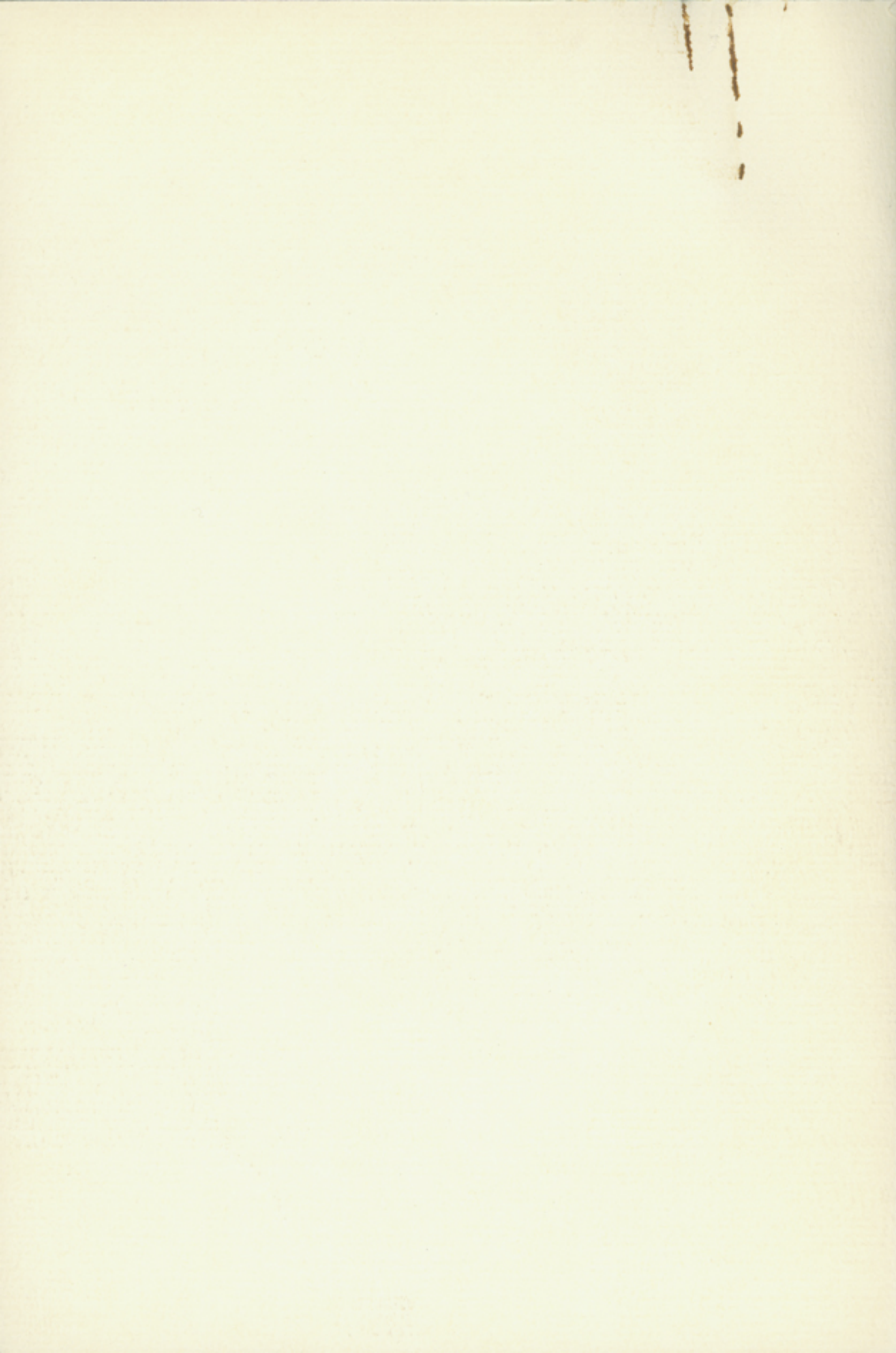
Director, Institute for Communication  
Research, Stanford University











August 15, 1960

Mr. James Etheridge, Jr.  
Executive Secretary  
Florida Educational Television Commission  
Room 112, Knott Building  
Tallahassee, Florida

Dear Mr. Etheridge:

Thank you for your letter of August 10 and for the enclosures.

I shall appreciate it if you will send us six copies each of Dr. Masiko's report and "Chicago's TV College, A report of a three year experiment by the Chicago City Junior College." Also, we do not have the detailed report on the Chicago City Junior College program mentioned in your letter, and I think it will be helpful if you will send us a copy.

Thank you.

Sincerely,

(Mrs.) Marion F. Buford  
Research Assistant

MFB:jg



## FLORIDA EDUCATIONAL TELEVISION COMMISSION

Room 112, Knott Building — Telephone: 3-5089

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JAMES ETHERIDGE, JR.  
*Executive Secretary*

August 17, 1960

Mrs. Marion F. Buford  
Research Assistant  
Board of Control of Florida  
Florida State University  
Tallahassee, Florida

Dear Mrs. Buford:

Enclosed are six copies of Dr. Masiko's report and the Chicago's TV College Report.

I find that I have let my copy of the detailed report on the Chicago TV College get away from me, but I have been promised additional copies and will send some along later.

Also enclosed is a partial listing of modern language courses on TV, which I thought might be of interest to you and Dr. Brumbaugh.

Please let me know if I can be of any assistance in providing other information on educational television.

Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Jim Etheridge".  
James Etheridge, Jr.  
Executive Secretary

JE:m

Enclosures

cc Dr. Myron R. Blee  
Dr. James L. Wattenbarger

August 19, 1960

Mr. James Etheridge, Jr.  
Executive Secretary  
Florida Education Television Commission  
Room 112, Knott Building  
Tallahassee, Florida

Dear Mr. Etheridge:

Thank you for your letter of August 17 and the  
enclosures.

We shall appreciate receiving the detailed report  
on the Chicago TV College whenever it is available.

Sincerely,

(Mrs.) Marion F. Buford  
Research Assistant

MFB:jg